

The Geographic Consequences of Petroleum in Nigeria  
with Special Reference to the Rivers State

By

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ABSTRACT

The growing dependence of most developing countries on foreign development and export of their extractive natural resources as a means of achieving rapid economic growth invites a debate about the relative costs and benefits of such commodity export-oriented development strategy.

For Nigeria the impact of petroleum has only been considered in positive terms, measured primarily in terms of public finances and balance of payments, hence there is a common feeling among most Nigerians that rapidly increasing oil revenues will solve all of the country's problems. Indeed, oil has done a lot to improve the nation's economy. This being the case, incidental social, economic, environmental and political costs go either unnoticed or are regarded as inevitable and not serious enough to worry about.

Therefore, the net effects on Nigeria of private foreign investment necessary for the production and export of crude petroleum is the central theme to which this thesis is addressed. It explores the benefits, as well as the costs, to ordinary Nigerians, based on the experiences of some of the most affected communities of an important

oil producing state, in comparison to the size of profits shared between the Nigerian governments and the industry.

Part I of the study, which consists of two chapters, provides the kind of background information and understanding which serve to focus the empirical examination in Part II: Chapter 1 presents some relevant social, economic, physical and political conditions in the country and the study region before the advent of the 'Oil Boom', and Chapter 2 deals with the development, financial significance and special circumstances of international oil industry in Nigeria. Chapter 3 investigates the nature of the link between the petroleum sector and socio-economic progress in the study region while Chapter 4 examines the contributions of petroleum to a host of social, economic and political problems. Chapter 5 specifically deals with the ecological disaster which petroleum production and export have created. The conclusions of these analyses are the basis of the final evaluation of petroleum's balance sheet and new policy recommendations in Chapters 6 and 7 of Part III.

It was shown that while the revenue windfall from oil in Nigeria has been substantial, its developmental effect is by no means obvious. Local communities of the inshore areas where oil has been discovered are very poor; their villages have been deprived of their old occupations without the majority of the people finding anything new to do; and as yet few benefits from the oil boom have filtered through to them. The industry itself has remained essentially extractive and exploitative, seriously aggravating existing conditions of economic and social contradictions in the country. Total dependence on oil revenues as a means of achieving rapid economic development has destroyed the resilience and diversity that once characterized

the economy and brought about serious problems of inflation and fiscal management as well as of social and ecologic responsibility. These lead to the conclusion that the costs of petroleum production and export to Nigeria have outweighed the benefits.

*Dutton*

## PREFACE

This work is not intended to be unduly critical of the governments of the federation of Nigeria, nor their public functionaries, nor even the Nigerian citizenry, in an irresponsible way. After all, there is now a deep sense of frustration and a general realization in the country of what cannot be done with oil and a desire to find immediate solutions to the problems which oil has thus far created before it is too late. A critical examination of previous policies and omissions which have brought about the present situation is obviously a necessary step in this direction.

Also, this work is the culmination of many years of study and interest in the human consequences of petroleum operations in the country. I first became seriously interested in the topic in 1974, as an undergraduate to the Ahmadu Bello University in Zaria, Nigeria, as a result of personal acquaintance with a number of oil-producing communities where the oil industry was already becoming a serious disadvantage rather than an asset. A friend of mine, Mr. P. U. Onyige from Omoku—one of the major oil locations in the Rivers State—helped to sharpen my interest in the subject. Mr. Onyige, now a student of the Center for West African Studies at the University of Birmingham, England, is doing research on a related topic. Unfortunately, all the photographs taken in the field in color films, which would have substantially improved the quality of this work, were

irreparably damaged through clouding by X-rays at a number of international airports during transit to California for processing. The loss was costly and is greatly regretted.

Although it has been necessary occasionally to reach into Economics, Sociology and even Political Science in order to substantiate certain positions or to develop the relationship among various factors, the main problems and concerns of this study are essentially geographic. These concern the spatial relations and implications of natural resource production and use. There is a strong concern here, from the perspective of peasant communities in particular, of the implications of the cultural and economic transformations and rearrangements that are occurring, and as they relate to people and land. Also, oil production has given rise to such transformations of landscape and environment that geography cannot afford to ignore them.

I did receive a great deal of help and encouragement from many sources, including oil company personnel, in the course of the study and the final preparation of this thesis. I wish to express my gratitude and acknowledge my debt to those federal and state government officers, oil company personnel and village peoples, who are far too numerous to be given credit individually for their substantial contributions.

I wish particularly, however, to thank Mr. R. A. Olorunfemi and his staff of the Nigerian National Petroleum Corporation (NNPC), Lagos; Mr. A. I. Dunku of the Inspectorate Division of the NNPC, Port Harcourt, Mr. C. Erekosima of the Ministry of Agriculture and Natural Resources, Port Harcourt, and Mr. E. O. Lawson of the Ministry of Trade and Economic Development, Statistics Division,

Port Harcourt. Although some of these people might differ with some of my conclusions, their assistance has been invaluable indeed.

I also received valuable suggestions and advice from Dr. Birinengi Idoniboye-Obu of the College of Science and Technology, Port Harcourt, who himself has been involved in several aspects of oil pollution in the Niger Delta. I am no less indebted to Mr. Nicholas Ohuche and his colleagues in the National Youth Service Corps in Port Harcourt for their most invaluable assistance in carrying out the tedious field interviews in Port Harcourt and the adjacent dependent settlements.

My particular thanks are due to the members of my Dissertation Committee who supervised and directed this effort: Professors D. J. M. Hooson (Chairman), J. Ogbu and R. A. Walker. They have stimulated my thought and provided essential guidance without imposing their own views on the main arguments and conclusions arrived at here.

This expression of thanks for help and encouragement received does not fix responsibility for anything said or that is contained in this work on anyone but the author.

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## INTRODUCTION

### Background to the Problem

The development of extractive, primary industries—often with foreign capital and technology—has been considered desirable for the welfare and economic growth of less developed countries.<sup>1</sup> Economic theory advocates it as a healthy form of specialization in what these regions can do best as embodied in the so-called 'comparative advantage' or 'international division of labor'.<sup>2</sup> These countries are said to be poor because they lack the resources, material and human, to develop their dormant natural resources. Therefore, international capital and technological transfer must necessarily lead to an improvement in the economic and human conditions of their peoples, especially in the face of increasing rates of population growth.

Specifically, foreign direct investment in the extractive industries not only works to remove capital and technological obstacles to growth, so the argument goes, but also mobilizes unused and underutilized factors of production, such as surplus or ill-trained labor and unexploited natural resources. It transfers capital and provides access to modern technology, it adds to employment, introduces efficient methods of production and generates much needed foreign exchange, which all lead to a higher standard of living. There are few major development problems to whose solution it does not contribute.<sup>3</sup>

If these claims were true, Nigeria, and indeed the other developing oil exporting countries, such as Indonesia and Venezuela, would have been able to overcome their problems of underdevelopment. Actual experience, however, has not been that simple in most cases. Whatever the acknowledged and supposed merits of individual projects, the net benefits from natural resource exploitation to developing countries generally have been grossly misrepresented. And particularly more misrepresented have been the assumed benefits from the production and export of petroleum from Nigeria. This is so because so far calculations of benefits have adopted an essentially economic approach, focussing only on revenue transfers and hypothetical fiscal and other economic effects in contrast to the reality of the actual situation.

Petroleum is unquestionably an important economic asset for any country fortunate enough to possess deposits of it. At the same time, the production and export of crude oil often bring significant socio-economic and environmental liabilities in their wake. For Nigeria the net impacts and consequences of petroleum thus involve a comparison of economic gains and incidental social, economic and environmental costs. This comparison becomes more meaningful and appropriate at the local producing level where the paradox of poverty and misery in the midst of plenty is most apparent.

The sudden escalation of oil revenues, popularly referred to as the 'oil boom' or 'oil bonanza', led to a euphoric feeling that Nigeria is rich and that oil will solve all of the country's problems. Because abstract economic projections, until very lately, persistently pointed in that direction, many people failed to realize in time what petroleum can and cannot do for everyone. In the absence of any

public or even institutional debate on this, all kinds of decisions were made and programs initiated, or omitted, which now make a critical evaluation of the net benefits of the oil industry all the more pressing.

The case of petroleum in Nigeria, from the point of view of its human consequences, reveals a number of contradictions and inconsistencies the study of which can make important contributions to the debate on the merits of foreign capital investment in developing countries' extractive industry. First, although the Nigerian Government's share of the petroleum profits has been substantial, reflected primarily in the national balance of payments and public finances, this has not automatically altered in a significant way the basic constraints to social and economic modernization. Nor has the industry itself filled in the gaps resulting from this. Second, the transfer of capital and technology, said to be the tonic for increased productivity and the development of underdevelopment may have intensified or even created social and economic inequalities of potentially high political risk. And third, the exploitation of one natural resource petroleum, has inevitably led to the destruction of others of equal or more lasting value, such as agricultural land, fisheries and forests.

Petroleum exploitation, like the production of agricultural export crops in Nigeria, takes place in rural places. But always the bulk of the gains from these rural based activities are diverted to distant metropolitan centers creating imbalances between rural and the urban sectors. Rural exploitation or neglect, is presently acute in the case of the oil-producing localities, although not peculiar to them.

Before the advent of the 'oil boom', peasant communities which toiled to produce the cocoa, groundnuts, cotton, palm oil and kernel, and other agricultural export crops which formed the mainstay of the national economy, have also been so exploited through the instrument of unpopular Commodity Marketing Boards.<sup>4</sup> The problem has both historical and contemporary dimensions which are worth exploring briefly so as to place our central problem in proper perspective.

Over 80 per cent of Nigerians still live in rural areas where they are engaged in either farm or non-farm occupations with a rural base.<sup>5</sup> These are the most economically and socially backward areas of the country. Olatunbosun (1975) shows that the past colonial economic policy not only discriminated against rural populations in matters of social and welfare development, but systematically exploited the natural and fragile resources of the rural peoples for the benefit of metropolitan industries and populations.<sup>6</sup> Peasants, often working fragmented holdings, were mobilized for the production of industrial crops. The bulk of the income derived from such rural economic activities was transferred to and consumed in the urban centers where the colonial administrators and their officials lived in the comfort of modern amenities and social services to the exclusion of rural communities. There was no deliberate and coordinated rural development program aimed at relieving rural distress or upgrading the quality of life of rural people.<sup>7</sup> Olatunbosun contends that "it is only the regressive pattern of distribution of public expenditure in favor of urban communities that has created inequality and social injustice which never existed before."<sup>8</sup>

In spite of the political strength achieved through political independence (in 1960), the set of development policies pursued by

Nigerians who took control of the government from the colonial administrators continued to resemble in many ways those of the colonialists. The core-periphery relationship initiated during colonial policy has continued to depress the status of rural life through the diversion of the gains from peasant agriculture and other primary activities that take place in rural environments to the cities. In the immediate post-colonial period little could be done to alter this 'colonial false start' (Dumont 1966)<sup>9</sup> because of inherited technical and financial obstacles. But the present failures in planning demand other explanations.

A very close observer of the Nigerian political economy, Professor O'Connell (1971), has noted that the technocrats who now run the affairs of state 'seldom see peasants as their constituents'.<sup>10</sup> Essentially, these urban-based growth economists consider as worthwhile only public investments which measurably add quantitatively to the 'all-important' Gross Domestic Product (GDP) or even some that do not but are meant to project an image of progress and modernization. Thus Nigerian development planners are not excited by investments in social welfare programs for rural communities because the rural population is dispersed and cannot be economically provided for, or is too poor to provide the critical threshold demand for costly social services. In this case, the ultimate goal of development becomes, not to enhance the quality of life of individual human beings, but the achievement of growth and prestige for their own sake. This is evident from a critical evaluation of the periodic development plan programs, particularly those conceived under the post oil-boom mentality.

## The Problem

Following from the preliminary discussion above, the problem then is to make a cost-benefit evaluation, in the broad social and environmental as well as economic sense, of petroleum in Nigeria, based on the experiences of the most affected communities in the Rivers State.

## Purpose and Context of the Study

The purpose of this study is to examine critically the gains and costs to local communities of the foreign operated petroleum industry in Nigeria. It is generally acknowledged that gains from petroleum in Nigeria have been substantial. But what is not commonly emphasized is that both the industries and the governments who share these gains have done little to pass on the benefits to the larger Nigerian community both in the regions of oil production and most other localities. Nor has it been widely recognized that the unintended, but devastating, problems created by the industry may have more than outweighed its benefits. For these reasons we shall address the following questions:

1. For whom and for what purpose is petroleum being produced in Nigeria?
2. In what ways have the industry and its revenues contributed (or otherwise) to the social and economic development of the country?
3. What have been the human consequences of petroleum production and utilization, both local and national implications.

In other words, what are the costs of the industry to Nigeria?

We will (1) provide a record of gains to the government to show that, although foreign investment in the petroleum industry has resulted in a significant transfer of foreign exchange and investment capital to Nigeria, the impact of these on the basic constraints to social and economic development has been minimal; (2) show that the modern technological and capital intensive nature of the industry as well as its international organization and profit motives, create little opportunity for local participation and probably frustrate more than stimulate local economy; (3) assess the impacts of financial dealings and fiscal policies, as well as the ecological consequences of operations, at the local producing level; (4) evaluate the net benefits of petroleum in the light of the above and (5) make recommendations for improving petroleum and development policies.

This study is intended to further examine the assumption that the benefits of foreign investment, necessary for the production and export of primary products from the developing world, far outweigh the costs. Our contention is that unless the financial rewards of such enterprises are translated into material, even social, benefits for the mass of the people of the host country, calculations and evaluations of benefits made simply on the basis of the net financial relations between the investor and the host government remain at best an oversimplification.

#### Working Hypotheses

To achieve the stated objectives above, it is necessary for this inquiry to begin with a set of assumptions. Although these are already implicit from our discussion so far, they can be focussed as follows:

1. Local gains from petroleum are minimal compared to the costs.
2. The present pattern of investment and development priorities in Nigeria seriously discriminate against rural populations.
3. Overreliance on a single extractive industry to forge economic development could lead to ecologic irresponsibility.
4. The Nigerian situation would seem to suggest that widespread assumption that rapidly increasing petroleum revenues accruing to developing country exporters increase their ability to deal with their problems of underdevelopment, may be incorrect.
5. On balance petroleum may have done Nigeria more harm than good.

#### Justification for this Research

There are several reasons for which a study of the net benefits of petroleum production in Nigeria appears attractive. Nigeria has been the largest single exporter of petroleum in Africa since 1974 and sixth in the World.<sup>11</sup> With the price revolution of the Organization of Petroleum Exporting Countries (OPEC) in 1973 she experienced an unexpected and phenomenal increase in oil revenues. But unlike other OPEC members such as Kuwait and Saudi Arabia Nigeria is saddled with a vast and rapidly growing population whose future welfare may well depend on how the present petroleum wealth is deployed. Thus whatever the substance of the alleged benefits and costs of foreign investment in natural resource development in less developed countries, we should find them reflected in the Nigerian experience.

All too often developing countries have relied almost exclusively on the exploitation of natural resources to forge economic and other forms of development. They have, in the process worried more about how to make the most out of such primary activities than about how to deploy the fruits to the best advantage of the majority of their citizens. Concerned warnings that this approach carries inherent economic and social problems have gone unheeded. For Nigeria this raises a serious development dilemma. Petroleum exploitation is surely creating unwelcome destruction and problems for the society and the environment. Yet Nigerians are not content to remain backward and unprogressive; they want Nigeria to develop at all costs. Unrestricted exploitation of her vast petroleum resources offers apparently the surest and fastest means of achieving growth. It is hoped therefore, that conclusions reached in this study will make a positive contribution to the current debate on what the role of petroleum should be in Nigeria's development effort.

#### Previous Studies and Literature

Oil fields are not natural but cultural landscapes. They do have an intense character and presence of their own which are strongly expressed not only on the land itself but also on the culture and people of the oil region. Thus oil fields and the oil industry provide us with a very wide range of research interests regarding this most powerful and strategic human activity.

However, studies of oil production do not usually focus on the forces that have produced the landscape of the oil field nor on the consequences of oil production on local environments and peoples.

Indeed, as Wallach (1968) has demonstrated, "Somewhere there ought to be a geography of an oil field; there ought, in the huge petroleum literature be a study of this strangely powerful landscape—a study of the forces that have created it. There is no such study."<sup>12</sup>

In the 'huge petroleum literature' authors have overlooked the character and influences of oil fields. Faithfully recording monthly production statistics, price trends and revenue transactions, they have not stopped to look at the human geography or the human consequences of petroleum production. Even the works of celebrated geographers like Odell (1963, 1974)<sup>13</sup> and Manners (1964),<sup>14</sup> with titles relating to geography and petroleum, do not really deal with geographies of petroleum because they do not give serious consideration to oil landscape but focus on oil. Perhaps oil the commodity has become so lucrative, so strategic and topical in terms of international economic relations, as to completely preclude inquiry into its spatial expressions and effects.

But are the character of the landscape of an oil field and its local human consequences capable of sustaining inquiry at all? This is the concern of the present pioneer work. It represents a departure from the mainstream of petroleum studies which focus attention only on production trends and revenue yields. By implication, therefore, there is little previous published literature that is of immediate relevance.

With specific reference to Nigeria, Schatzl (1969)<sup>15</sup> has written extensively on the technical and economic aspects of petroleum. Pearson (1968, 1970)<sup>17</sup> has also made several contributions but his are again essentially financial analysis and prognostications.

Melamid (1968)<sup>17</sup> writes what he calls 'The Geography of the Nigerian Petroleum Industry', although he simply presents an economic survey of the production and distribution of petroleum products in Nigeria. The same trend is true of several other monographs which have overplayed the economic significance of petroleum in Nigeria, even in the light of more recent stark realities.

Nonetheless, there is another body of literature which is relevant to the conclusions of this study. These deal generally with the division of opinion regarding the merits and costs to developing host countries of foreign investment in their extractive natural resource industry. While foreign investors stress the benefits which their operations confer on the local economy, the host governments (at the national level) tend to disparage such alleged benefits and most often both are locked in consuming conflicts over profit margins. In any case, it is always the hapless rural communities who bear the brunt of such conflicts of giants.

There are those who conclude that the foreign owned raw material export industry functions as an outpost of the industrial country from which the investment came and to which the raw materials are exported. These analysts hold that the modern, highly efficient, capital-intensive industry exists as a foreign enclave, side by side but out of touch with the traditional, inefficient sectors producing only for the local economy, and that the foreign investor removes the raw material without leaving much of enduring value behind. In this 'dual economy' model, so goes the argument, that export industry fails to provide the normal gains from trade, leads to concentration on a static comparative advantage (the natural resource endowment),

unbalances the economy and delays the process of industrialization. They contend that the export industry fails to share its returns with domestic factors—a charge premised on the enclave notion—and causes major distortions in the local economy.<sup>18</sup>

These views are opposed by other observers who see the natural resource export industry as a source of a wide range of benefits. They maintain that, if it were not for the foreign companies' entrepreneurial know-how and risk-bearing, and for their familiarity with foreign markets, the natural resources of their hosts would remain unexploited or would be developed with less speed and efficiency. Therefore, it is argued, whatever returns accrue to local factors are net gains and as such superior to the alternative of delayed or no development. More specifically, the import of foreign capital, the employment and training of local labor, together with many spread effects advance industrial development and economic growth.<sup>19</sup>

It is needless at this point to deal with these viewpoints as they exist here because of an overriding limitation shared by both. They are preoccupied mainly with the nature of relationship between investor and host country's overall economy. Such an analysis, however, does not exhaust the important issues which one considers vital in appraising resource mobilization and use. For instance, we need to know not only how profits are shared between industry and government, but also how the benefits are disposed of in the domestic economy, and especially how the rural majority fit into the scheme of things. Primary activities should have significant local fallout. Thus any meaningful assessment of their net impacts must necessarily consider what they do to local communities of the

region of production as an important segment of the national economic and political system. In the empirical analyses that follow, the merits and weaknesses of these schools of thought will become apparent when applied to the existing situation in the oil-producing rural communities of the Rivers State.

### Plan of the Thesis and Research Approach

The thesis is organized into three parts: In part I we present some background information considered essential for understanding the problem and the analysis that follows. Part II presents the empirical analyses, and in Part III we draw conclusions and examine the implications of our findings.

Chapter 1 is a summary and introduction to some relevant physical and human conditions of the study area within which the oil industry functions. Chapter 2 presents an analysis of the past and present development of petroleum in Nigeria as well as conditions in the industry that influence its operations and impacts.

Part II, which contains the main body of the research, begins with an examination of petroleum industry's impacts on local communities through government and industry expenditure programs as well as the assumed automatic linkages and benefits which industry ought to make to many other sectors (Chapter 3). We then proceed from an investigation of the unintended economic, social and political problems (Chapter 4) to an assessment of the ecological problems (Chapter 5).

In Part III, we attempt a cost-benefit evaluation of petroleum in Nigeria in the light of the insights gained and based on our initial assumptions (Chapter 6) and explore the policy implications

of our findings for Nigeria generally and the oil-producing communities in particular (Chapter 7).

The field work for this thesis was carried out in Nigeria in 1977. My data were gathered partly in Lagos and partly in Port Harcourt and the oil communities of Omoku, Obagi, Ebocha, Obirikom, Bonny, Bomu, Afam and Agbada of the Rivers State. In Lagos and Port Harcourt I conducted both oral and written interviews of some Federal and state government officials as well as foreign oil company personnel in connection with the problem. I also interviewed community leaders and other inhabitants in the most affected rural areas and visited the sites of oil production to observe the physical and cultural effects of the oil industry.

In addition, I obtained a rich body of data on the problem from reports and statistics released by the Nigerian National Petroleum Corporation (NNPC), which is the symbol and medium of government participation in the industry. Another source of data was reports of the industry by the multi-national oil corporations. The works of previous researchers, such as those of Pearson, Schatzl and others provided useful insights as did newspaper editorials and commentaries and scholarly publications regarding the concerns, opinions and attitudes of other Nigerians about the petroleum industry. Lastly, some useful information was gained by examining and comparing land use maps, especially oil concession maps and a few available aerial photographs.

A note about the personal and written interviews of the city and rural populations should be made here. Because the Greater Port Harcourt Municipality was very extensive and could not

be effectively covered in the time available, I imposed a grid over the area map and selected survey sections using a random sampling table. Streets and buildings to be interviewed within each section were also randomly selected. In all, 300 respondents were interviewed, including those encountered in the market and other public places. Another 300 respondents were reached altogether in the rural areas I visited. In this case there was no systematic way of sampling because of the unorganized nature of rural residence.

Most of my respondents were essentially illiterate; and many literate ones were not used to self-administered questionnaires or were afraid to write about oil matters. Consequently I relied mostly on oral interviews in both Port Harcourt and the rural areas.

In general emphasis was on assembling both quantitative and qualitative evidence to test the validity or otherwise of our working assumptions.

Some elements encountered in the field, which are capable of influencing our observations and conclusions, deserve some mention here. The petroleum industry in Nigeria has always been and continues to be regarded very sensitively by all concerned. This creates serious problems regarding data collection and the accuracy of what is available. Parties involved in the industry sometimes withhold information in areas considered sensitive to the parties' interests or engage in deliberate distortion to achieve ulterior motives. For example, concerning the negative impacts of petroleum, the views of the affected communities, industry and the government all differed substantially because of their varying stakes in the operations. We have tried to solve this problem by a sifting process which calls for more personal observations and attempts at objective assessment.

The available statistics were not complete, nor were they intended to be used for arriving at a mathematical formulation in which gains from petroleum, as the independent variable, would account for changes in a society wholly or partly dependent on it. Our concern was with getting an overview which could serve as a point of departure for later sectional inquiries.

## NOTES

<sup>1</sup>Various strands of this argument are taken up by Chandler Morse who expounds the pros and cons of international investment in raw material development in the developing countries (see "Potentials and Hazards of Direct International Investment in Raw Materials," in Clawson, M. (ed.), *Natural Resources and International Development*, Johns Hopkins Press, Md., 1964, pp. 367-414) and H. Myint who suggests that there is a non-recurring benefit but a continuing cost (see also "The Gains from International Trade And The Backward Countries," in *Review of Economics and Statistics*, 1954-1955, pp. 129-142). With specific reference to Nigeria, E. Charles Jr. examines the potential cost to host countries of foreign exploitation of mineral and agricultural resources, (see "The Appraisal of British Imperial Policy With Respect To The Extraction of Mineral Resources In Nigeria," in *The Nigerian Journal of Economic and Social Studies*, Vol. 6, No. 1, March 1964, pp. 37-42.

<sup>2</sup>By the implications of this theory, developing countries would benefit more from international trade if they 'specialized' in the production and export of minerals and other industrial raw materials for which they have a 'natural advantage', than if they competed in the production of finished products for which they have an obvious disadvantage. But critics have also noted that such so-called specialization is detrimental to developing countries' local economy and social welfare because it leads to

many kinds of international inequalities and injustices which keep them perpetually poor and backward. See for instance, R. Prebisch, "Commercial Policy in the Underdeveloped Countries," in *American Economic Review*, May 1959, pp. 251-255, and Gunnar Myrdal, *Economic Theory And Under-Developed Regions*, Gerald Duckworth & Co., Ltd., London, 1957, pp. 96-97 and 148; *Development and Under-Development - A Note on the Mechanism of National and International Inequality*, The National Bank of Egypt: Fifth Anniversary Commemoration Lecturers, Cairo, 1956, p. 88.

<sup>3</sup>Those who stress the benefits, as well as the costs, often do so with one particular country in mind, but their arguments are related to the general case. Thus MacDougall, G.D.A., "The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach," in *The Economic Record*, March 1960, pp. 13-35, deals mainly with Australia. Other interesting examples include Hirschman, A. O., *The Strategy of Economic Development*, Yale University Press, 1958, especially Chapters 7, 8 and 11, and the series of reviews of the benefits in the case studies on *United States Business Performance Abroad*, sponsored by the National Planning Association. See those on *Creole in Venezuela*, 1955, *Firestone in Liberia*, 1956, *Stanvac in Indonesia*, 1957, and *The United States Fruit Company in Latin America*, 1958.

<sup>4</sup>The Commodity Marketing Boards, such as the cocoa or groundnut Marketing Boards, are government monopolies (a surviving colonial vestige) with sole responsibility for marketing the country's agricultural export crops in the world market. In theory, the Boards were set up to negotiate on behalf of local

farmers and to stabilize producer prices by building a reserve out of the difference between realized and producer prices which would be used to support producer prices during periods of international market slumps. But in reality the practice works against the farmers who helplessly watch their incomes decline disproportionately to the so-called reserves which were diverted to purposes other than agricultural price support. G. K. Helleiner, *Peasant Agriculture, Government and Economic Growth in Nigeria*, Richard Irwin, Inc., Illinois, 1966, pp. 152-200, discusses the origin, practices and the cases for and against the fiscal role of the Marketing Boards. A good treatment of the problem is also made by Ogunsheye, A., 'Marketing Boards and the Stabilization of Producer Prices and Incomes in Nigeria' in *The Nigerian Journal of Economic and Social Studies*, Vol. 7, No. 2, July 1965, pp. 131-139, and Olatunbosun unequivocally relates Marketing Boards' repressive pricing policies, designed to accumulate surpluses, to rural poverty and deprivation. See Olatunbosun, D., *Nigeria's Neglected Rural Majority*, Oxford University Press, Ibadan, 1975, pp. 74-95.

<sup>5</sup>In some parts of Nigeria, a neat and unproblematic definition and delineation of what is rural and what is urban is not always simple because of a curious mix of demographic, cultural and economic patterns. However, rural population is officially estimated at about 80 per cent of the total population, Federal Ministry of Information, *Nigeria Handbook*, Lagos, 1977, p. 100, although actual proportions vary widely from one geographic region to another, being least in the traditional urban societies of the Western Yorubas.

<sup>6</sup>Olatunbosun, D., *Ibid.*, pp. 49-97.

<sup>7</sup>The first development planning exercise in Nigeria was the so-called 'Ten Year Plan of Development and Welfare of 1946 initiated by the then British Colonial Secretary. In spite of the title, the plan lacked objectivity and was ineffective for a number of technical and administrative reasons (see the preamble to the *Second National Development Plan 1970-1974*, Federal Ministry of Information, Lagos, p. 6). The post-colonial development programs too, have failed both in overcoming some of the structural deficiencies of their predecessor and in altering an essential default in its philosophical foundation—rural exploitation and neglect.

<sup>8</sup>*Ibid.*, p. 5. There is some exaggeration in this statement though, but the basic contention stands.

<sup>9</sup>Dumont, R., *False Start in Africa*, Frederick A. Praeger Inc., New York, 1966, 320 p.

<sup>10</sup>Professor James O'Connell, who has been critically following developments in the political economy of Nigeria, believes that there exists among development economists a strange bias against the intrinsic worth of improving rural economy and social welfare. Criticizing the *Second National Development Plan: 1970-1974* (the brain child of economic technocrats) he observes that ...'not only are the Plan's proposals for agriculture unimpressive but it is difficult to trace in its pages great concern for rural standards of living. Yet only by raising such standards of living can we both hope to raise rural productivity and slow down migration to the towns'. In modern Nigeria, as against the colonial one, he blames this carry-over of a lack of concern

for peasants on a political system without elected representatives who derive their power and authority from the countryside where about 80 per cent of the population reside. See O'Connell, J., Political Constraints on Planning: Nigeria as A Case Study in the Developing World, *The Nigerian Journal of Economic and Social Studies*, Vol. 13, No. 1, March 1971, pp. 39-57. For his further commentary on the problems and misdirection of development effort in Nigeria, see O'Connell, J., Some Social and Political Reflections on the Plan, *Ibid.*, Vol. 4, No. 2, July 1962, pp. 131-146.

<sup>11</sup> *Oil and Gas Journal*, Production Summary, 1974-1977.

<sup>12</sup> Wallach, Bret, 'The Geographic Consequences of Oil-land Tenure at the Midway-Sunset Oil Field, California', unpublished Ph.D. dissertation, Department of Geography, University of California, Berkeley, 1968, p. 1.

<sup>13</sup> Odell, P. R., *An Economic Geography of Oil*, London, Bell, 1963, 219 p. and *Oil and World Power: Background to the Oil Crisis*, Penguin, 1974, 245 p.

<sup>14</sup> Manners, G., *The Geography of Energy*, London, Hutchinson, 1964, 205 p.

<sup>15</sup> Schatzl, L. H., *Petroleum in Nigeria*, OUP, Ibadan, 1969, 257 p., and 'The Development of the Oil Industry in Nigeria: with Special Reference to the Effects of the Civil War', in *Erdkunde*, 1., March 1970, pp. 59-71.

<sup>16</sup> Pearson, R. S., *Petroleum and the Nigerian Economy*, Stanford University Press, California, 1970, 235 p., also *The Impact of Petroleum Production on the Nigerian Economy*, unpublished Ph.D. dissertation, Harvard University, 1968; Pearson, R. S. and

Pearson, S. C., 'Oil Boom Reshapes Nigeria's Future', in *Africa Report*, February 1971, pp. 14-17; Pearson, R. S. and Meyer, R. K., 'Contributions of Petroleum to the Nigerian Economic Development', in *Commodity Export and African Development*, Pearson and Cownie (eds.), Heath & Co., Mass. 1974, pp. 155-177.

<sup>17</sup>Melamid, A., The Geography of the Nigerian Petroleum Industry, in *Economic Geography*, Vol. 44, No. 1, January 1968, pp. 37-56.

<sup>18</sup>Among the various proponents of the various shades of this argument are Gunnar Myrdal, *An International Economy*, Harper & Brothers, 1956, pp. 98-109, who strongly develops the foreign enclave notion; H. W. Singer who develops the dual economy idea, U.S. Foreign Investment In Underdeveloped Areas - The Distribution of Gains Between Investing and Borrowing Countries, in *American Economic Review*, May 1950, pp. 473-485, and E. T. Penrose, 'Profit Sharing Between Producing Countries and Oil Companies in the Middle East', *Economic Journal*, June 1959, pp. 234-54, who examines the possibility of the investor taking unfair advantage of his monopoly powers. Some sociologists and others have approached this problem from a somewhat different but related perspective. They emphasize the problems of the backwash effects of such international development of natural resources which include rural out-migration and the disruption of indigenous ways of life—agriculture, commerce, industry and institutions—and the existence of a center—periphery relationship in which the center appropriates to itself the surplus of the periphery for its own development. See Souza, A. and Porter, P. W., *The Underdevelopment and Modernization of the Third World*,

Association of American Geographers, Resource Paper No. 28, 1974, pp. 15-60, for a summary of different positions on the issue. Others are Bernstein, H., "Modernization Theory and the Sociological Study of Development," in *Journal of Development Studies*, Vol. 7, 1971, pp. 141-170; Frank A. G., "Sociology of Development and Underdevelopment of Sociology," *Catalist*, No. 3, 1967, Buffalo, N. Y.; State University of New York at Buffalo, pp. 20-73; Higgings, B., "The Dualistic Theory of Underdeveloped Areas," *Economic Development and Cultural Change*, Vol. 4, 1956, pp. 99-115; Mabogunje, A. L., "Urbanization In Nigeria - A Constraint on Economic Development," *Economic Development and Cultural Change*, 13, 1956, pp. 413-438.

<sup>19</sup>In addition to reference No. 3 above, see also Gaiskell, A., Resource Development Among African Countries, in Clawson, M., *Natural Resources And International Development*, Ibid., pp. 280-284 and Grunwald, J., Resource Aspects of Latin American Economic Development, in Clawson, M., Ibid., pp. 307-336.

<sup>20</sup>See notes 15 and 16 on preceding pages.

## CHAPTER I

### THE SETTING: NIGERIA AND THE RIVERS STATE

An analysis of the net benefits of petroleum in Nigeria should begin by examining the national and local settings within which the industry functions. Furthermore, to appreciate fully the changes that have occurred, consequent on the petroleum industry, we need a historical overview. These are the undertakings of the present chapter.

There is no dearth of good and relatively current literature on the physical and human geography of Nigeria.<sup>1</sup> Although we briefly focus attention here on a number of factors, even issues, of a fundamental nature which are immediately relevant to our thesis, the reader who is already familiar with the literature may still find this section rewarding.

#### Location and Size of Nigeria

The Federal Republic of Nigeria, the largest state on the West African Coast is 924,000 square kilometers, or nearly the size of Texas and Oklahoma combined.<sup>2</sup> As Figure 1.1 shows, Nigeria lies between latitudes 4° N and 14° N and between longitude 2° E and 15° E. Thus it lies entirely within the tropics. In the south the country is washed by the Gulf of Guinea in the Atlantic Ocean; in the west and north she is bordered by the Republics of Benin (Dahomey) and Niger; and in the east she adjoins the Cameroon Republic.

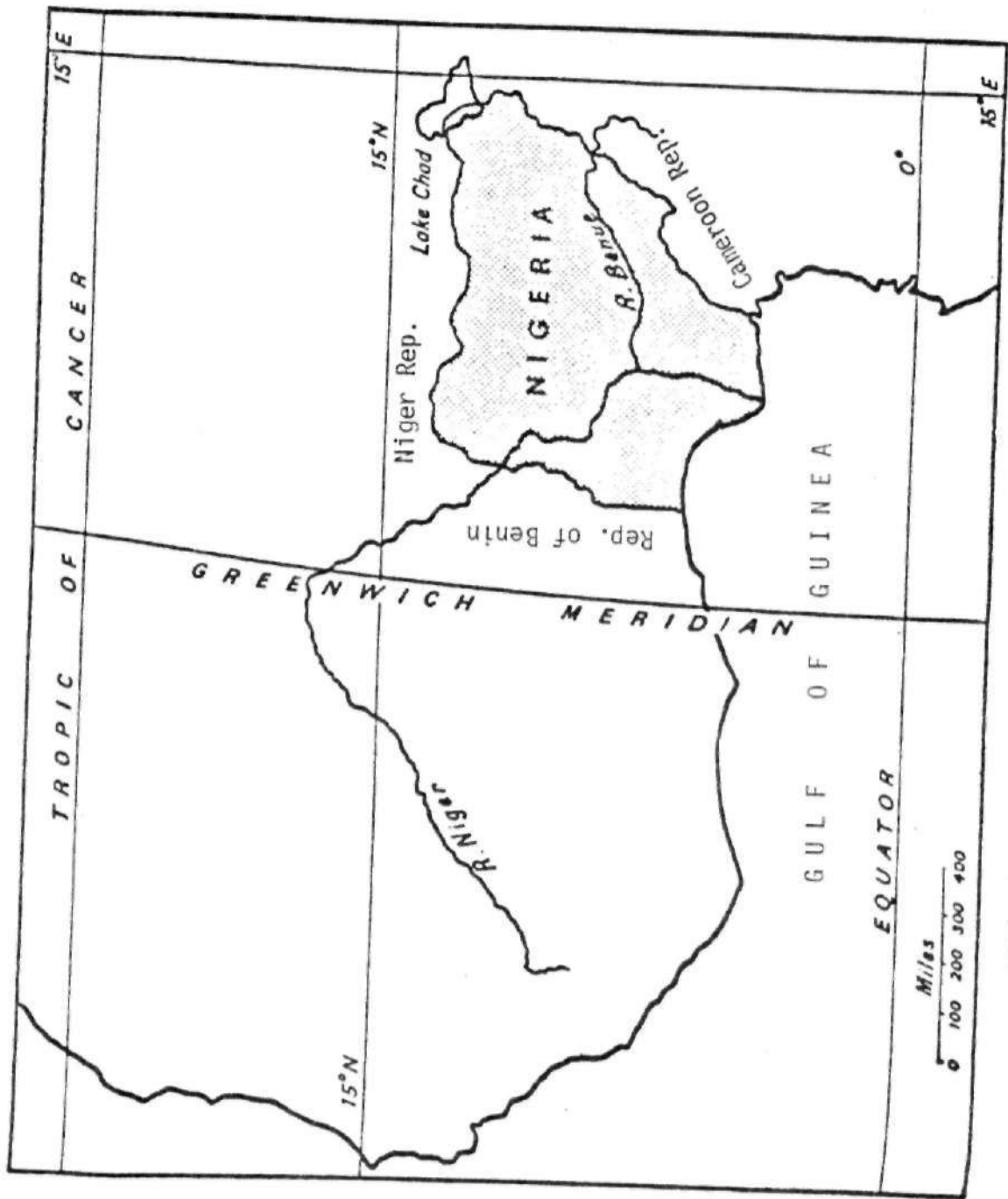


FIG. I.1 Nigeria: Position in West Africa

The locational advantage of Nigeria on the west coast of Africa in relation to the Americas and Western Europe, particularly during the closure of the Suez Canal, has been a very important factor in her exploitation and export of crude petroleum, compared to the Middle East, Indonesia and even Venezuela.<sup>3</sup>

### Physical Characteristics

Stretching for about 1,000 kilometers from north to south, the country comes into two broad climatic and vegetational zones. In the south it is humid with average temperatures of about 30°C (86°F) and relative humidity of 80-100 per cent with considerable rainfall during the wet season from April to October.

Toward the north, daytime temperatures rise to about 45°C (113°F), but the humidity declines and the drop in temperature at night is very marked in contrast to the south. As the country lies wholly within the tropics, temperatures are generally high and rainfall is mostly seasonal and heavy in the south and heavy to light in the north until the sahel fringes (Fig. 1.2).

This climatic regime naturally leads to a north-south vegetational and occupational difference. In the south, behind a low coast, edged by mangrove swamps, lies a broad belt of rain forest. North of this, the vegetation changes to savannas. These wooded grasslands become more open toward the extreme north where they phase imperceptibly into the drought-prone sahel of the Central African Sudan. Thus root crops for domestic food and, lately, plantation culture for export are the basis of southern economy, while the northern economy is strongly based on the production of a variety of grain crops and fibers and animal husbandry (Fig. 1.3).

FIG.1.2. NIGERIA: MEAN ANNUAL RAINFALL

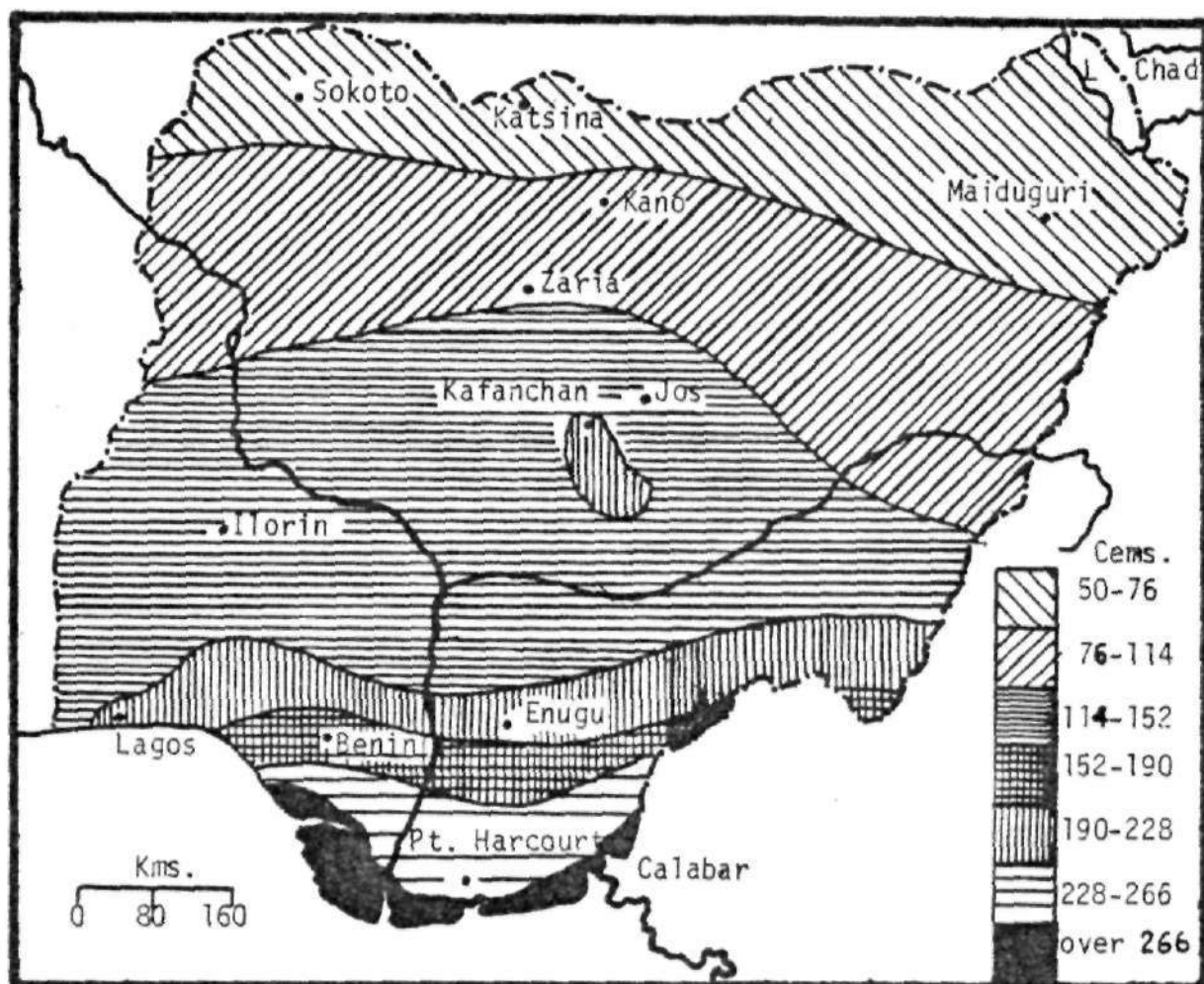
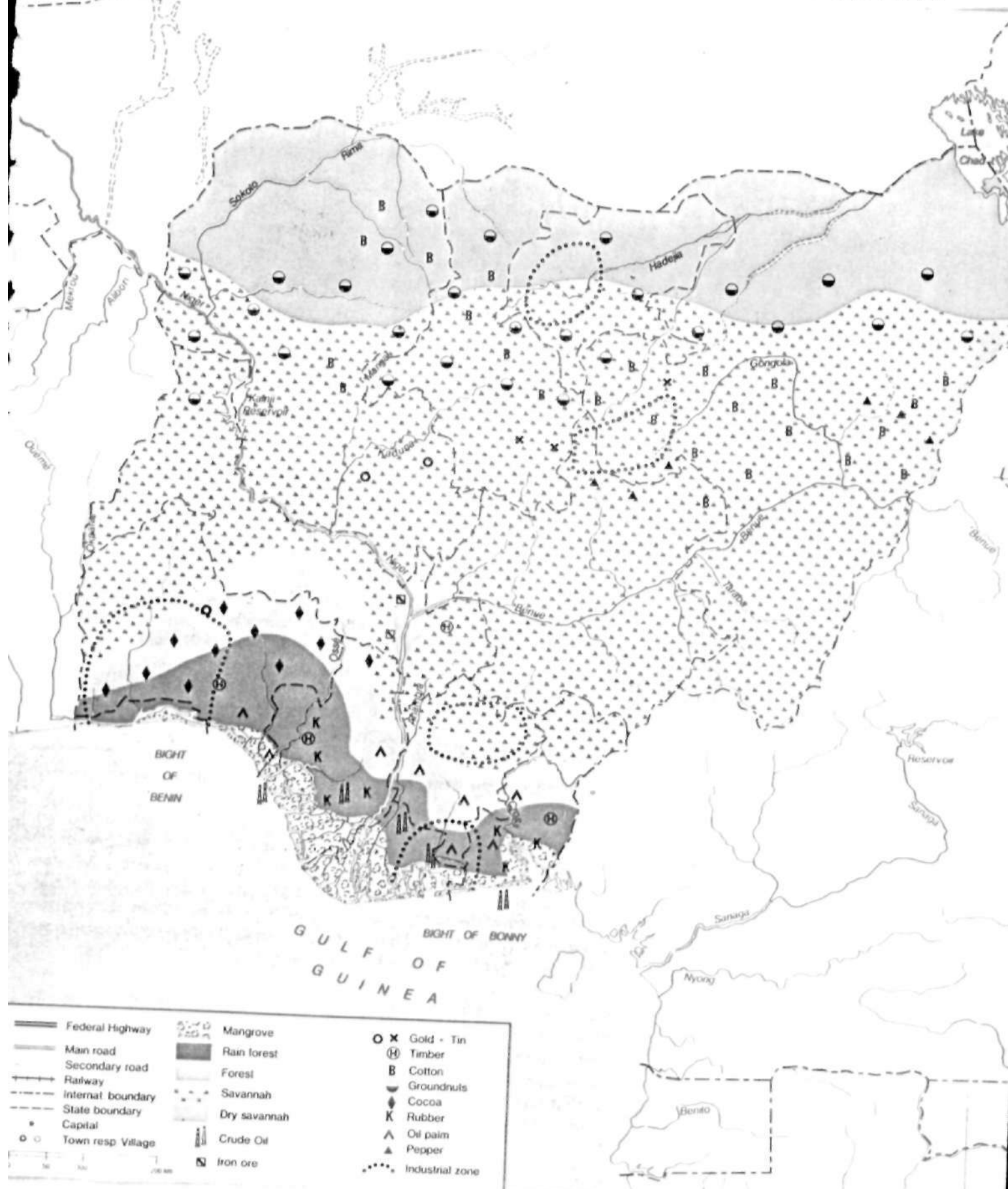


FIG 1.3 NIGERIA: NATURAL REGIONS AND AGRICULTURE



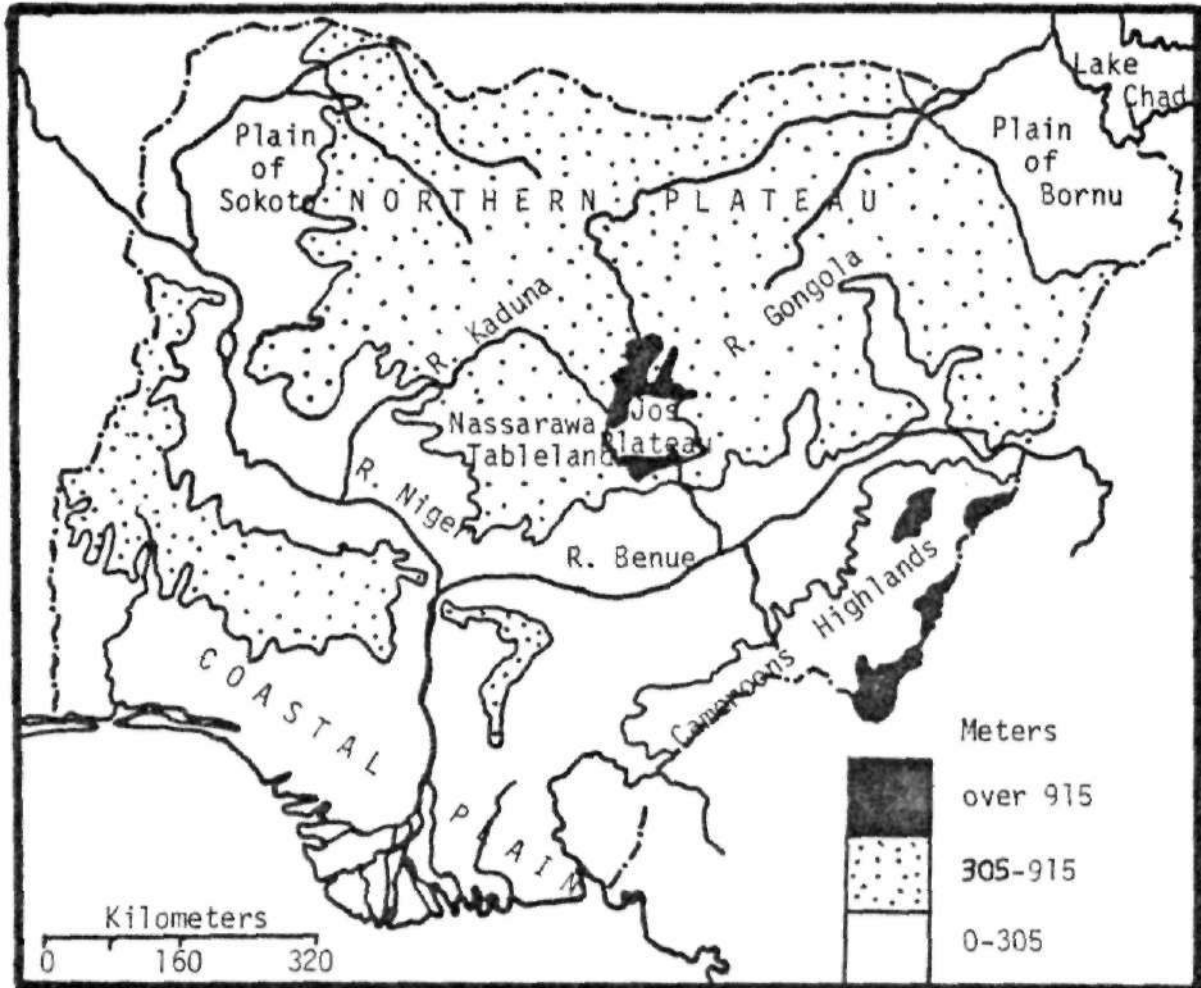
The north-south physical and cultural differences are a source of both strength and weakness. On the one hand, the diversity of natural conditions and cultures, which permits the production and exchange of a rich and great variety of both domestic and export food and material products, have been a source of strength, balance and resilience to the pre-oil boom national and regional economies. On the other hand, B. W. Hodder (1969) notes that the notion of "north" and "south" differences in Nigeria, as in most of West Africa, is real and based on the fundamental physical, economic, demographic, cultural and religious contrasts between the two regions.<sup>4</sup> This "north" and "south" mentality has had much of a destabilizing influence, particularly in the field of politics.

Nigeria is part of the relatively subdued West African countryside, tilting gradually from over 1,220 meters (4,000 feet) at the highest elevation in the Jos Plateau in the north to under 2 meters (6 feet) above sea level in the south. Apart from a few isolated highlands in the east which are the fringe of the lofty Cameroon Mountain Range, the rest of the country ranges from slightly undulating to flat countryside. The most prominent physical landmark, is the Niger-Benue river system which, with numerous tributaries in the south, drains more than 75 per cent of the country to the Atlantic Coast, where silt brought down by the Niger system has built the oil-rich Niger Delta of today (Fig. 4). It follows then that the delta is the most poorly drained section of the country -- a factor which exacerbates the problem of unchecked oil pollution.

#### Peoples of Nigeria

The National Population Census of 1963 put the Nigerian population at a figure of 55.62 million which represented more than a

FIG. 1.4. NIGERIA: RELIEF AND DRAINAGE



quarter of the population of the continent of Africa. The census carried out in November 1973 was rejected because of widespread accusations of falsification of returns by some of the former regional governments, but the preliminary results show a high population of 79.8 million. This figure makes Nigeria the country with the eighth highest population in the world (see appendix 1 for the trend in population growth for 3 censal periods and the root of the population controversy). But as Table 1.1 shows, this population is not evenly distributed. The significance of high population number for the country is that it makes the problems and challenges of development more intractable and brings to sharp focus the type and reality of decisions made in regard to the dispensation of present petroleum revenues.

There are nearly 300 distinct ethnic groups in Nigeria, but the three major ones are the Hausa-Fulani group in the north, the Yorubas in the west and the Ibos (Igbo) in the east. Ethnic diversity goes with intense cultural, social and language diversities as well as deep religious differences. It is officially estimated that Moslems make up 47 per cent of the population, Christians 34 per cent and animists 19 per cent.<sup>5</sup> These diversities and differences have been creating problems of understanding and tolerance which sometimes affect decisions made concerning the production and distribution of national wealth.

#### Political Developments

Nigeria became independent of British rule in 1960. Since January 1966 she has been ruled by a succession of military governments. The constitution which came into force on October 1, 1963 is suspended

Table 1.1. Nigeria-Population Density.

<u>The 12 states</u>	<u>Capital</u>	<u>Area 1,000 Sq. Km.</u>	<u>Inhabitants Millions (provisional)</u>	<u>Population Density Inhabitants Per Sq. Km.</u>
Benue-Plateau	Jos	101.5	5.2	51
East-Central	Enugu	29.9	8.1	269
Kano	Kano	43.1	10.9	250
Kwara	Ilorin	74.3	4.6	62
Lagos	Lagos	3.6	2.5	690
Mid-Western	Benin City	38.6	3.2	84
North-Central	Kaduna	70.2	6.8	97
North-Eastern	Maiduguri	272.0	15.4	57
North-Western	Sokoto	168.7	8.5	50
Rivers	Port Harcourt	18.1	2.2	123
South-Eastern	Calabar	28.4	3.5	122
Western	Ibadan	75.4	8.9	118
Republic of Nigeria	Lagos	923.8	79.8	86

Sources: 1. Federal Office of Statistics: Annual Abstract of Statistics 1974, Lagos, Nigeria.

2. Guy Arnold - Modern Nigeria.

and all political parties are prohibited as the country is ruled by military decrees.

Political evolution has been rather painful at times. Between 1967 and 1970, a destructive civil war was fought to preserve national unity and integrity. Following the crisis, a process of state mutation emerged in 1967 which made 12 smaller states out of the 4 powerful regions of the first Nigerian Republic. In 1976 these became 19 states which now make up the components of the Federation. The idea was to make the states as small and economically dependent on federal subventions as possible and to see that no one state is powerful enough to threaten secession as did the former Eastern Region in 1967. This strategy only became economically feasible with the outburst of petroleum wealth. But dependence on petroleum revenues means that political stability premised on the existence of small dependent states stands in serious jeopardy if the petroleum industry falters.

#### Agricultural Resources and Potentials

Agriculture has traditionally been the principal sector of the Nigerian economy and the country is blessed with immense agricultural resources. Neither temperature nor moisture is a serious limiting factor because of the diverse climatic conditions described above. For instance, in the 1963-64 fiscal year, before the period of "oil boom", the gross domestic product was ₦2,745 million (about US \$4392 m) and agriculture, forestry and fishing accounted for 61 per cent of that.<sup>6</sup> As the mainstay of the economy, this sector provided the basic food and employment for the growing population and domestic raw materials for the growing industrial sector.

The country's estimated land area is 98.3 million hectares. The total cultivable land area is estimated to be 71.2 million hectares, or 72 per cent of the total land area. But much less than one half of this is actually utilized.

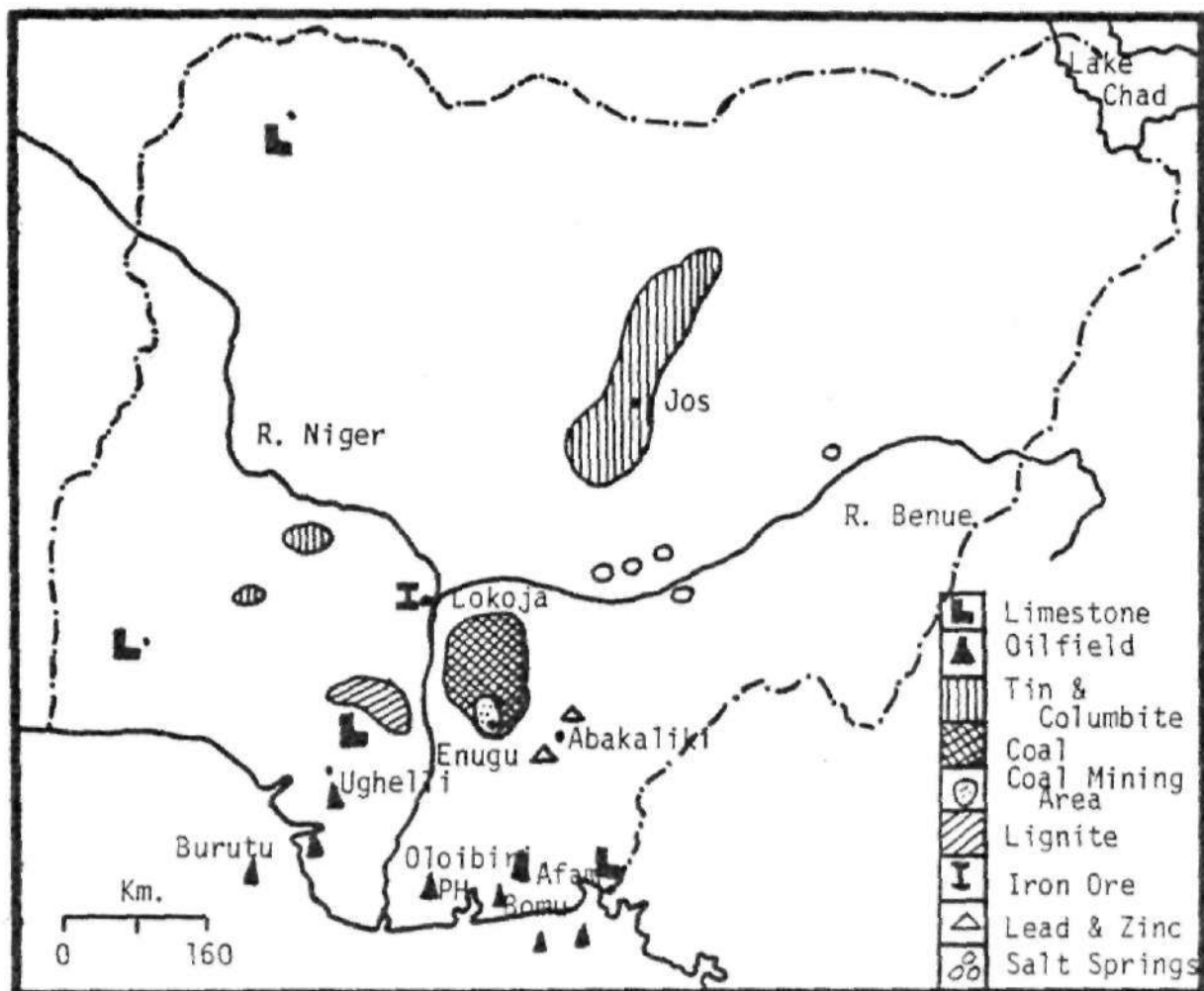
The main crops can be grouped into food and export crops. The main food crops are yam, cassava, cocoyam, millet, rice, maize, sorghum (guinea corn), groundnut, melons and beans. The principal export crops include groundnut, coca, palm kernel, rubber, and seed cotton (Fig. 1.3). Livestock is also produced and includes mainly cattle (previously for export), pigs, sheep, goats and poultry.

About 80 per cent of the work force is still employed on the land and farming is characterized by small family holdings which are largely unmechanized and in need of greater inputs of fertilizer, capital and extension services. Farmers still employ traditional methods and except for a few instances, production continues on a subsistence level with little or no surplus. Because of inadequate food production, Nigeria has lately been forced to import growing quantities of food, mainly grains, beef and poultry, milk products and sugar. The potential for self-sufficiency in food production is there since much of the soil is fertile and the climate conducive, but only about 35 per cent of the arable land is currently under production, with less than half devoted to food crops.

#### Mineral Resources

Mineral resources, which added to the diversification of the agricultural economy of Nigeria before the present oil-dominant one, are tin and columbite, coal, lead and zinc, iron ore, limestone and even some gold (Fig. 1.5). The present preoccupation with petroleum

FIG. 1.5. NIGERIA: PRINCIPAL MINERAL DEPOSITS.



has shifted attention away from these other minerals, but most of them still exist in considerable reserves. The coal industry was largely damaged by the civil war while tin and columbite have suffered setbacks relating to international market forces. But in the main, the state of ruin, decline or non-development of the non-oil mineral deposits in the country, is illustrative of the nature and range of problems which are related to the sudden development of the Nigerian petroleum industry. In spite of this, it is important to note that the initial development of these mineral deposits provided the early impetus for the penetration and exploitation of other resources and peoples of most interior locations through the construction of coast-bound, single track railroads.

#### Industrialization and Economic Development Problems

As in agriculture, there is much more potential for industrial development in Nigeria than has actually been tapped. With a population of nearly 80 million people and an exceptionally fast growing national income (thanks to the petroleum industry), the country has an effective domestic market, with demand for a wide range of capital and consumer processed goods unparalleled in Africa and most of the developing countries of the world. But industrialization, too, has not been an important component of the economy.

In the past, the government's industrial policy was largely restricted to protecting domestic industry against foreign competition. Import substitution permitted a relatively efficient consumer goods industry to grow up to supply the domestic market. Over half the country's industrial output is still made up of food, beverages and tobacco, textiles and agricultural and forestry products involving

further processing. Apart from the processing of agricultural produce and the exploitation of mineral resources such as tin ore and columbite, practically no export-oriented industry has emerged.

In theory the Nigerian economy is a mixed one in which private enterprises and public monopolies co-exist, subject to occasional state interventions. But the present industrial and commercial structure of the economy still largely resembles the pre-independence one which was set up and dominated by a number of European firms when local investment capital in large-scale commercial and industrial enterprises was not only privately and publicly short but also deliberately discouraged by colonial economic policy. Secondary production was frustrated except for the initial processing of agricultural and mineral products for export or the assembling and finishing (including bottling and packaging) of consumer goods whose components have been imported from Europe to save on transport costs and tariffs or to reduce the risks of perishability and breakage.

In the indigenisation scheme embodied in the Nigerian Enterprises Promotion Decree of February 1972 and subsequently amended by a decree of 5 July 1976, the government had sought to reduce the scale of foreign interests' domination of the economy by reserving certain levels of production and distribution to Nigerian citizens only and limiting the size of foreign interests' participation in others to varying proportions.<sup>7</sup> The implementation of an ambitious economic program such as this (although it suffers from untold abuses and loopholes) was made possible by petroleum revenues, which substantially eased the constraint of domestic capital for investment. Since, however, this capital is concentrated in very few hands the transition has simply meant the emergence of a small corps of indigenous

entrepreneurs buying out previously foreign concerns -- not changing anything of the structural deficiencies in the economic and social development of the country.

The impression, however, should not be created that the private sector, under whatever ownership, has ever played more than a minimal role in the development process that is going on in the country. The previous colonial administration initiated a kind of welfare state in which almost all public works and public services, infrasfructural development and social welfare institutions are entirely provided by government out of public funds, except if otherwise provided by different missionary groups. These missionaries have lately been dispossessed of their traditional services -- mainly education and health services -- as part of an indigenisation process, so that in frustration most communities have resorted to organized community effort to take care of their essential needs. But basically the pace and course of development are set by government statutory corporations and departments under the directorship of ministerial heads and a corps of technocrats. Thus, not only does the public expect the government to meet the burden of development out of public revenues, but also whatever goes wrong in the process is logically blamed on the government and its functionaries.

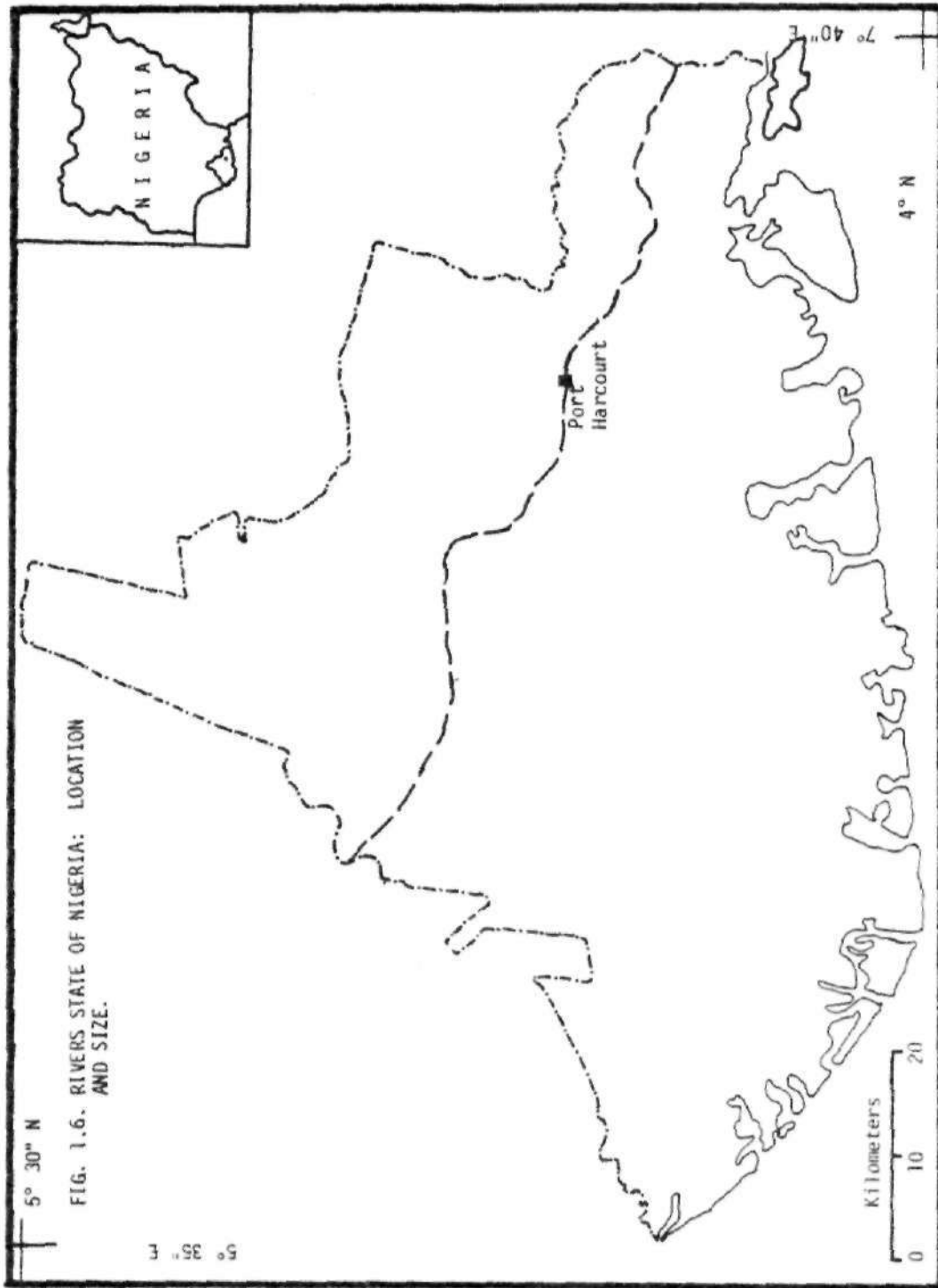
## THE RIVERS STATE

### Physical and Human Conditions

The "oil-rich Rivers State" occupies the southern extremity of Nigeria, precisely between 4° N and 5° 30" N latitude (Fig. 1.6). It occupies about 28,000 square kilometers of the Niger Delta.

As its name suggests, more than three quarters of the state is occupied by water. A network of rivers and creeks, distributing the waters of the Niger River, stretch across the state to empty into the Gulf of Guinea in the Atlantic Ocean. The most prominent of these rivers, whose source is the great Niger, include the Nun, Orashi, Sombiero, New Calabar, San Bartholomes, Santa Barbara and the Bonny River. It is not difficult to see that land, rather than water, is critically short in the state. In fact, Figure 1.6 shows a line stretching from Ekeremo to Ndoni in the north and Opuoko in the south which divides the state into two main physiographic divisions which have bred economic and cultural stereotypes of some consequence.

The first physiographic region is the delta proper or the riverine region. Here a tropical rain climate prevails. There is heavy rainfall on the coast of about 437 cm (172 inches) a year such as at Bonny or 373.4 cm (147 inches) at Brass. It decreases slightly inland to an average of about 348 cm (137 inches) at Port Harcourt. Rain falls in nearly every month of the year, especially near the coast. Relative humidity approaches 100 per cent all the year round.



The soils and resources of the Niger Delta are very much related to the prevailing hydrological conditions and it is on this that the following subdivisions of the region are based.

1. The coastal areas consist of sands and ridges perpendicular to the coast and with poor drainage. The beaches are covered by coconut trees and oilpalms. The area is unsuited to agriculture, except to few raised islands such as at Bonny where the former Eastern Nigeria Development Corporation established a coconut palm estate. Other than this, field crops are scarce and small, mostly between 0.0080 and 0.0202 hectares (0.2 and 0.5 acres), carried on by women.<sup>8</sup> On the whole, the population is only slightly interested in agriculture, their principal source of income and livelihood being fishing which is done by men as well as by women and even children. To them fishing is a way of life.

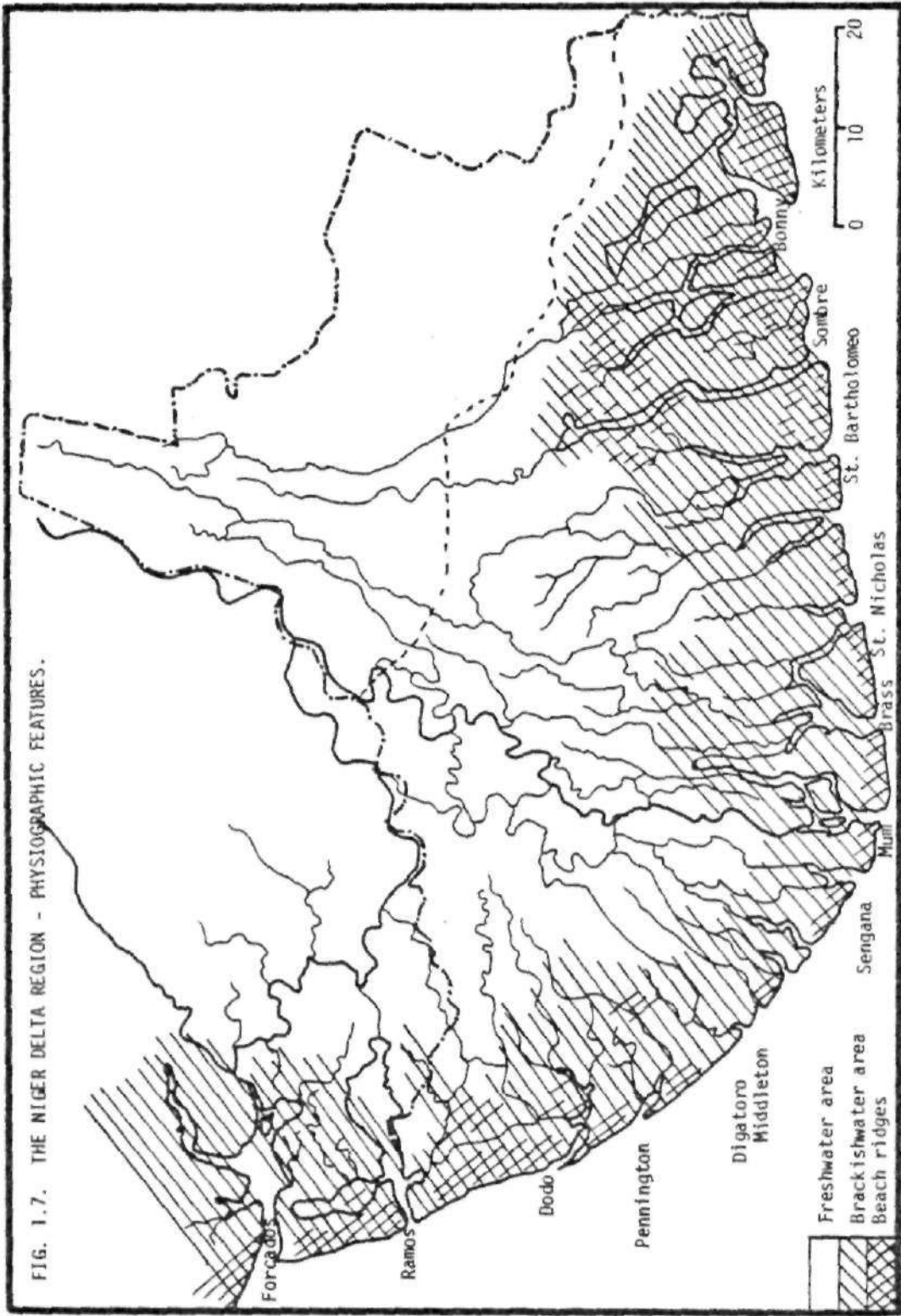
2. The mangrove area, 8 - 40 kilometers wide, lies directly behind the beach ridges (Fig. 1.7). This part of the delta is a brackish to salt water area, level and periodically inundated by tidal waves. Numerous tidal creeks of various sizes intersect the area. The soil consists of heavy clay or sand which is very humic, owing to the many fine roots of the mangrove. Three species of mangroves are found here: *Rhizophora racmosa* which reaches up to 46 meters, *Rhizophora harrisonii* and *Rhizophora mangle*, both of which are smaller but very resistant to high salinity. As the area is regularly flooded with brackish to salt water, any agriculture is a great exception. The mangrove soil can be made suitable for rice cultivation, but only after expensive preparation.

3. The fresh water zone which lies behind the mangrove area consists of a section directly influenced by the Niger and its numerous

distributaries and another section not so directly influenced. The former is a typical river landscape interspersed with high and well-drained levee soils. But further from the rivers the terrain becomes lower and the soil heavier -- the so-called back swamps. The water in the Niger and its distributaries rises so high each year from September to November that it flows over the lower parts of the levee soils into the brackish swamps.<sup>9</sup> In this period the whole area is under water. Even the highest spots become swampy. It is understandable that under such circumstances, no permanent dry agriculture is possible. A study of aerial photographs reveals that about 47 per cent of this area is covered with raffia palms which grow on soils which are only dry in the dry season.

The second main physiographic region of the Rivers State is the so-called upland region or the mainland. Though not as extensive as the delta proper, it has more cultivable land area and rain forest resources than water. The upland region rises from 15 meters in the south to a highest point of 31 meters in the Etche Division. The soils, which consist of sand or loamy sand, have relatively better natural drainage, although swamps commonly occupy depressions and valleys where rain water accumulates during the rainy season. Oilpalms, raffia palms and rain-forest trees (Iroko, Obeche, Mahogany, Rubber, Cocoa, etc.) grow abundantly in this region.

Rainfall in the upland area is also heavy, generally above 254.00 cm in a year at most stations such as Elele and Omoku. Unlike the Delta there is a pronounced period of dry season from November to March during which it is possible for the dry north-east trade winds, known in West Africa as the Harmattan, to bring some salutary



effects and a welcome break from the drowsiness of the rainy season. Generally, a dense, evergreen rain forest is found in varying degrees of succession and modification.

Thus the ecology of the state is a delicately balanced one even under traditional cultures and economies. Nowhere in the state are drainage and wetness not a serious problem before recent complications introduced by petroleum exploitation.

The Rivers State has an estimated population of about 1.7 million according to the 1963 census figures (which for reasons we have stated earlier are still official). Within the last decade or so, however, a substantial increase has been observed, given a high rate of natural increase of 2.8 per cent annually. Thus the preliminary results of the nullified 1973 census shows the population of the state to be 2.2 million in an area of 18,100 square kilometers of land and water, resulting in an average population density of 123 persons per square kilometer. However, population distribution in reality varies considerably, partly on account of the distribution of land and water, with more people living in the upland area than in the delta. About 80 per cent of the population is rural,<sup>10</sup> although a mass exodus from the rural places is taking place.

The major ethnic groups in the state are the Ijaws (Ijo), Ikwerres, Etches, Ogonis and the Ogba/Egbemas. These are distinct language and cultural groups. Although the difficulty of terrain leads to the geographical isolation of the various groups, some form of inter-relationship and coherence have been maintained through such instruments as trade and inter-marriage. Moreover, the political exercise of the creation of the Rivers State (together with the present Cross River State) out of the former Eastern Region of Nigeria

was calculated to further the integration of these peoples who regarded themselves as minorities within the Ibo dominated Eastern Region.

In spite of the unifying factors above, stereotypes exist in the state which tend to color social, economic and political relationships. The "uplanders", perhaps because of their geographical location, which makes their area the bread basket of the state, and their cultural and ethnic affinity to the resourceful and highly enterprising Ibos, especially the Ikwerres and Ogba/Egbemas, regard themselves with an air of superiority. They are educationally and economically on top of the state and strive for administrative and business domination. Like the Ibos, they are traditionally republicans with little or no regard for institutionalized chieftaincy or royalty which makes them more receptive to change. Thus they tend to be resented by the other groups who regard them as upstars and exploiters.

The Ijaws of the Niger Delta, on the other hand, are riverine and so are essentially fishermen and women. They are scattered in small villages which are separated by large bodies of water. This makes the provision of most social services and amenities economically prohibitive and creates the impression of backwardness. Thus, although they came in contact with Western education first, through European Missionaries and traders who penetrated the interior of the country from the coast, they have not moved as fast as the uplanders in adopting western behaviors, skills and ideologies. Besides, their relatively stronger acceptance of the authority of local chieftains -- the Amanyabos -- and the prevalence of aristocratic families and institutions, based on distant genealogical claims,<sup>11</sup> have tended to make them more socially stratified, conservative and more eager to rule than be ruled. The more progressive uplanders simply regard

their problems as mainly the result of indolence and the pursuit of easy life.

For some strange reasons not quite accountable, the Ogonis are regarded by the other major groups as culturally inferior. It does not matter what progress they may have made in the educational and economic sectors, the stigma of cultural inferiority still sticks and functions to delay their smooth entry into high-level civil service or political appointments.

These stereotypes, particularly the riverine and upland peoples' mentality, affect political and economic calculations in a number of ways, but of direct relevance to us here is the fact that they slow down or entirely frustrate effective planning and execution of balanced development as sections of the state struggle for advantages in locating state projects and positions in the state bureaucracy. For instance, in the state civil service, there are frequently allegations of domination in certain departments by particular groups as a result of which appointments and promotions are made on the basis, not of qualification, but where one comes from. Allegations are also made that some state projects are not located at the ideal places but at the hometowns of sole decision makers who want the projects there for sectional interests, or that state contracts are awarded only to people from the same area. Since not all sections are equally "fortunate" to have a bunch of such decision makers, they must necessarily rely on community development programs, a self effort based on local mandatory levies, for the provision of most social and infrastructural services.

## Natural Resources and Occupations

The Rivers State is blessed with varying degrees of fishery, agricultural and forest resources.

Marine fishing is done along the shallow continental coast bordering the southern part of the state which extends some 56 kilometers offshore, but since small dug-out canoes are used, fishing operations tend to remain close inshore (some 4-6 kilometers from the land). The full list of fish taken off the coast is lengthy and of little significance to anyone but an ichthyologist. Many of the species have only local names. Some do not even have that -- they are fish that just happened to get caught. But the main marine fishing is for banga and sardines.

The Ijaws have less keenness for sea fishing and pursue their craft in the sheltered estuaries, creeks, tidal lagoons and distributaries of the Niger Delta (Fig. 1.7) where fishing communities operate more than 1,000 canoes and have an average annual catch of 22 kilograms per canoe per fishing day.<sup>12</sup> According to Floyd, practically everyone living in the Niger Delta -- men, women and children -- engages in fishing, at least as a part time occupation. With crude gear in the form of nets, hooks and traps they catch crabs, prawns, shrimps, catfish, tilapia, sardines, oysters and bonga which migrate into the creek areas at high tide from the marine sector.

In the fresh water swamp areas of the upland Rivers State, some fishing is done along the flood-plain sections of the Niger, Imo and Orashi Rivers. Fish farming -- that is, the construction of artificial ponds which are stocked with young fish or fingerlings, which are fed and harvested at maturity -- has become very important

to the communities. Some of these fish ponds are large and owned communally, but they can be small and individually owned. Fishing communities in general are self supporting, providing enough for their own consumption and some surplus to exchange for other foods and manufactured goods they had to import.

Agriculture is far more important in the upland region than fishing. The main crops include rice, cocoyam, yam, fruits, maize, banana and plantain, cassava, palm trees, raffia palm, rubber, cocoa, etc. It provides a complete means of livelihood.

Unfortunately, agricultural practice still relies on the use of crude implements and techniques and is constrained by tenural problems stemming from extreme land fragmentation and the pressure of population growth. Fallow years have been shortened drastically in places like Omoku to between two and three years. Individual farms range between 0.5 and 1.2 hectares.

The civil war in Nigeria withdrew many young agricultural hands from the land, who joined the armed services. They have not yet returned. This has created such a labor shortage in the farms that prices have soared much more than imported food items, and the process continues. Shortage of agricultural labor is exacerbated by the declining quality of rural life and the continuous flight of villagers to the cities.

Farming is practiced by both men and women alike but there is some specialization regarding the type of crops and the nature of farm labor suitable to both sexes. For instance, men almost generally cultivate and tend the yams while women specialize in the cultivation of cassava and vegetables. The division is not too rigid by any means. However, while clearing and tilling of virgin bush is regarded as

masculine, weeding is regarded as a feminine job. The important point is that there exists some division of labor in the farms.

As a general rule, mixed farming and cropping are practiced. These have the effect of insuring the farmer and his family against seasonal hunger or total crop loss should disaster strike. Thus it is usual for two or more different crops to be grown in one field at a time or the major food crops such as yam, cassava and maize to be rotated among various pieces of land in alternate planting seasons as a means of conserving fertility and ensuring continuous high yields. Occasionally one export crop is emphasized as in the case of cacao, but the farmer at the same time intercrops sufficient food-stuffs such as plantain or banana, cocoyam and vegetables to ensure food for himself and his family. But these patterns are now breaking down because, in spite of high food prices, effort outside the farms yields higher and more immediate income, while farming is considered undignified.

Forest resources in the Rivers State are also substantial and important in a number of ways. The mangroves of the salt or brackish water swamps, especially *Rhizophora racmosa*, is logged extensively for use as telegraph and electric poles and for firewood all over the state. Locally its greatest use is in home construction where logs are used not only to build cabins in seasonally flooded fishing outposts but also to support these cabins well above the level of the floods. The other species of mangroves are used mainly as firewood, especially for cooking and smoking fish for export. The Ijaws also use the bark of the mangroves to prepare concoctions for preserving their fishing nets and other herbal purposes. Such is the importance of the mangrove to the culture and economy of the Ijaws.

The most profitable forest trees of the rain forest zone are the Iroko (*Chlorophora excelsa*) and the Obeche (*Triplochiton sclerxylon*) both of which make excellent hardwood timber. In addition, a large number of other hard and soft wood trees are logged and shipped overseas through the Abonema wharves.

The raffia palm grows extensively, both wild and cultivated, in the rain forest zone and also in the mangrove zone where conditions are conducive. Raffia palms are of considerable economic value to the people. Raffia fronds are skillfully made into mats which are used extensively to make thatched roofs. The poles also provide rafters and stakes for house roofing and other supporting needs. But one of the most important traditional occupations here is wine trapping. The raffia trees are tapped extensively for their delicious juice, the palm wine, which is highly favored locally. Tapping, fermenting and distilling palm wine to produce the most favored local dry gin have become very important in the local economy. Until recently, the making and selling of local dry gins or the so-called "illicit gin" was strongly prohibited by the colonial administration and continued by the immediate post-independent national governments, because they could not collect either import or excise duties on the highly alcoholic product due to the private nature of production. Offenders were immediately thrown into jail. This action represented one of numerous colonial efforts to stifle domestic industries, no matter how rudimentary, to make room for the dumping of the products of metropolitan industries. Fortunately, however, local distilling has been "legalized". Demand for the product is almost insatiable especially in the riverine delta where the natives feel, at least

psychologically, that it goes well with their system in the constantly wet and drowsy riverine environment.

### Land Tenure Systems

It is necessary to emphasize the strength of attachment to communal and ancestral lands of the various peoples of the Rivers State so that we can better appreciate their frustrations in coping with imposed oil concessions and other related land-use systems.

Floyd (1969) put it clearly that:

...the land belonged, as it still does in the last analysis, to a group of kin, a family or clan, the membership of which included not only the persons alive at any particular time, but persons dead and persons not yet born. Land was therefore more than tangible property; it expressed the social and spiritual identity of a group of kinsmen in contradistinction to other groups in other communities.

When mythology, magic, religion and sentimental attachment to ancestors and descendants is mixed with land tenure, the issue becomes a highly complicated one. For generations, these mystical ideas about the land have dictated when, where, how and by whom it should be used for agricultural purposes. Of special significance was the cardinal principle that no member of the community should be without land for compound gardens and farms. Concepts of this kind die hard, and reforms in land use require in turn a psychological and spiritual reform within the land-owning groups.<sup>13</sup>

This is a complete and accurate statement of the sentimental nature of land tenure in the state and among many other communities in the former Eastern Region. Slight differences exist, but generally the following kinds of tenures have been identified:

Particularly in the delta, mostly arable soils which are not frequently flooded may belong to individual owners. The areas are divided into compounds or quarters. Each family belongs to a certain compound or quarter and owns part of it. After the death of the

proprietor of a compound the property is divided between his wives and later on inherited by the children, male as well as female. It is clear that the system inescapably leads to a considerable fragmentation. In the upland areas, daughters can seldom have hereditary rights and only under extreme circumstances.<sup>14</sup>

Traditional communal land tenure has been a wise adaptation for common security in both regions of the state. Communal property is the property of the village. The inhabitants of the village only have the right to collect the products, forest or swamp, be that palm wine, oil-palm fruits, timber or firewood, etc. The inhabitants are also allowed to cultivate or make fish ponds in the communal lands, but it remains village common property, and after harvesting, it has to be returned. The assignment is done according to traditional village custom by the chief and the elder people of the village.

People outside the village have to pay for these rights. The money received becomes the property of the village; it may be divided among the compounds or quarters or used for communal development, as the making of small dikes around the village or the maintenance of the village school. Most of the rural land is under this category which would mean that compensation would theoretically have to be paid according to prevailing customary practices for converting most of these lands into oil concessions or for damages resulting from oil operations. But such has not been quite the case, as Chapter Five will explore.

The last group of tenure systems that are now recognized can be called modern forms. Individual plots may now be hired for a period of 2 - 3 years. The price sometimes depends on relationship, but generally ranges between ₦20 before 1970 to well over ₦300 in 1977, a

hike of 1,500 per cent which reflects one of the ugly impacts of petroleum here. The high prices paid show that there is already a real shortage of land, but also that the farmers do not own any other property. Share-cropping is also practiced, whereby the owner of the land receives one-third of the crop, but this is not a common rule. Pledging of the individual land to a money lender, including or excluding the use of the land, exists in a minority of cases. After payment of the debt (which can take generations of descendants) the land is returned to the owner.

Summarizing, it must be understood that under customary land tenure, there is no legal title deed or land registration. Orally-transmitted tradition usually backs up a farmer's claim to his land or a community's claim to property. Occasionally, however, land disputes occur between one community and another, putting large tracts of land out of use for the duration of the controversy. Due to the inevitable social upheaval and occasional physical violence which could lead to loss of lives, serious land disputes often end up in court where already scarce resources are further wasted on litigation. The absence of registration certificates or title deeds means that farmers find it very difficult to use part of their land as collateral for farm improvement loans from banks and other lending agencies. The public sector must necessarily, therefore, bear the burden of such structural improvements.

#### Administrative Organization

With the implementation of Local Government Reforms in 1977, the former 18 Administrative Divisions of the State have been reconstituted into 9 Local Government Authority Areas with Port Harcourt as the

State Capital. These are as follows: Ahoada, Bonny, Bori, Brass, Degema, Ikwere/Etche, Port Harcourt City Council, Sagbama and Yenagoa (Fig. 1.8).

The average size of the population of each Local Authority area is about 200,000 to 250,000, but some are much less than others, especially areas like Degema, Brass and Yenagoa which include most of the inhospitable delta swamps. Besides some political and administrative reasons, one of the important considerations for the present administrative set up is to spread development by providing public assistance and giving the people a greater stake in the economic and social development of their localities. To the extent that the new system has brought about the construction of new public buildings such as administrative buildings and personnel quarters, it has made noticeable impacts, but otherwise the duplication of administration costs and bureaucracy, as well as the endless agitations by "minorities within the minority", have saddled Local Authorities with such secondary responsibilities and distractions that have severely limited their effectiveness.

Port Harcourt is the only city in the state and the state's political, commercial, industrial and educational center; it is Nigeria's oil capital and second largest seaport and therefore a regional focal point or growth pole. Thus everyone in the state seems to have a stake in this "no man's land" which, the more it grows, the less opportunity exists for other parts of the state to grow and develop.

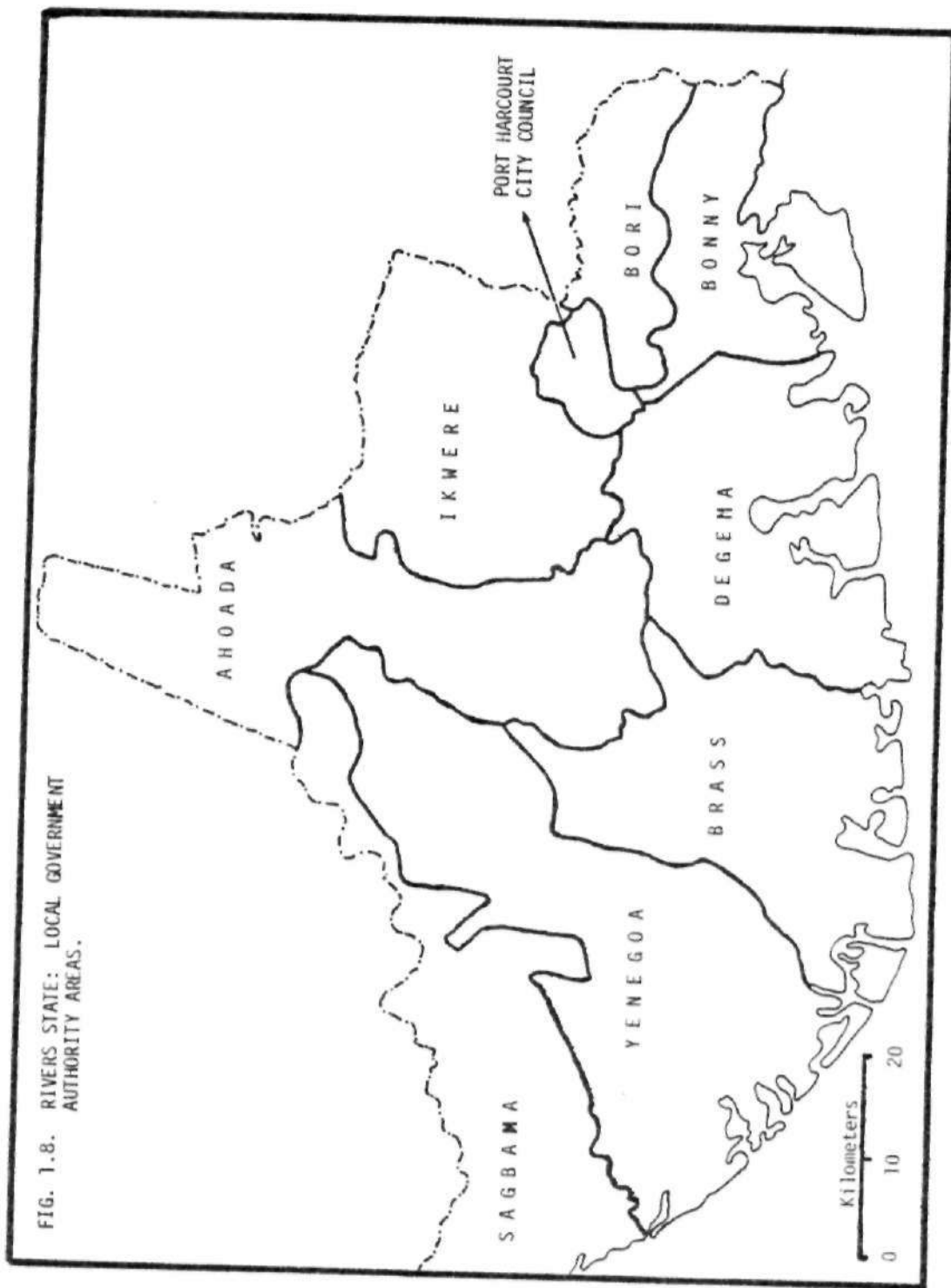


FIG. 1.8. RIVERS STATE: LOCAL GOVERNMENT AUTHORITY AREAS.

## Communication

The physiographic nature of the state (Figs. 7 & 8) clearly indicates the kind and magnitude of communication problems which the state faces and which constitute much of the isolation and drag on social and economic development efforts.

In the riverine area, by far the most important form of transportation is boating along the maze of estuaries, creeks and lagoons of the Niger Delta. To a very large extent this is still done by means of the traditional dugout canoes in the navigation of which the natives, including women and children, are great experts. The dugouts are used to overcome both short and long distances such as movements between one compound and another or the journey to and from farms or markets, which may be up to 44 kilometers. Even for much longer and hazardous journeys such as between Bonny and Port Harcourt (approximately 148 kilometers), the dugouts are extensively used, although steam boats and launches are being gradually introduced. These are partly owned by private oil companies and partly by the State's water transportation agency, but services are infrequent, costly, and unpredictable, which makes the traditional boats still a much preferred form of transportation. In general, water transportation remains laborious and hazardous, not only because of the extremely intricate and fluctuating tidal levels of the water system, but also because of extra insecurity introduced by an increasing legion of smugglers of imported goods who disguise as native farmers or fishermen. Innocent natives have often suffered hardships resulting from the operations of anti-smuggling customs officers.

Although the former Eastern Region of Nigeria before the civil war was credited with the highest surfaced road density in Nigeria

(28,520 kilometers), the same could not be said of most of the areas of that region that later became the Rivers State. The discrepancy was clearly due to sectional politics in the dispensation of social and infrastructural amenities. Yet the little that was available was severely damaged by the civil war.

Since the civil war ended, road rehabilitation and construction have been chaotic at best. While few roads in some parts of the state are as good as anywhere in the country, many are no more than dirt tracks. More recently some definite improvements have been attempted as will be made clear in Chapter Three. But, for the most part, roads have been of poor quality -- so bad, in fact, that they hardly last the whole period of a single rainy season. Actually, road construction is partly constrained by the regional topography. Most of the upland area, where a road system is extremely important, is low-lying, often swampy, with the water table only 1.5 meters below ground level in a number of places. Thus construction costs are high and out of the range of communal effort.

Port Harcourt alone in the State has an airport and is a railway terminus. But neither air nor rail transportation is of much internal significance, except in so far as they link the State to the rest of the country for some limited services. The difficulties of communication in the State makes Port Harcourt assume an importance much out of proportion to its administrative, industrial and commercial roles. With all the State bureaucracies and higher educational and cultural institutions concentrated there, it has also become a cultural and social center. Literally, "all roads lead to Port Harcourt".

### Special Problems

The Niger Delta area has long been a sectorally neglected area with an economy and infrastructural development peripheral to the national mainstream. Concern for the predicament of this region was generally voiced in isolation but became more articulate and effective by 1958 when it prompted the setting up of a "Minorities Commission" to look into the special problems of the area. In its report of 1958, the Commission recommended that a Federal Board be set up to consider and advise upon the problems of development in the Niger Delta and the Ogoni Division.<sup>15</sup> This recommendation was considered by the resumed Nigerian Constitutional Conference, held in London in September and October, 1958, which agreed to set up the Niger Delta Development Board (NDDDB) for an initial period of ten years. The purpose of the Board was to advise the Federal and Regional Governments (Eastern and Mid-Western Regions) with respect to the physical development of the delta area as a result of many decades of deliberate neglect. The problems included flood control, estuarine erosion, how to achieve rapid agricultural and industrial development, communications improvement and social welfare development.

In June 1959, constitutional provision for the Board was made by the Nigerian Order in Council, 1959. The establishment, functions and operations of the Board were covered by Section 14 of the Nigerian (Constitution) Order in Council, 1960, and the Niger Delta Development Board Act, 1961.<sup>16</sup>

Although provisions in the Board's charter appeared elegant and incisive, they were never rigorously applied and so achieved no socio-economic structural change in the designated area until the

military in 1966 swept aside the constitutional basis and existence of the Board.

The reasons for the failure of the Board are obvious -- politics and excessive bureaucracy. The Board had only advisory powers; it did not have the funds nor the authority to carry out projects that it might have recommended. Thus although its small corps of technical experts' undertook various surveys and studies of the physical resources and the human needs of the Niger Delta area, effective implementation of recommendations and reports was often constrained by political and administrative elements. The various minority groups of the Niger Delta have never voted for the political party in power in both regional and federal elections. Therefore their denial of social and infra-structural development was a case of political vendetta accomplished through political and administrative decisions.

The Federal Military Government, by the Decree No. 37 of August 3, 1976, again established a new body -- the Niger Delta Basin Development Authority (NDBDA)<sup>17</sup> -- with the same function of finding solutions to the twin hazards of annual floods and erosion (river banks and estuaries) in the delta and achieving a rapid agricultural, economic, industrial and social development in Niger Delta Basin. The terms of reference of the new Authority is given in Appendix 2. It is interesting to note from this that the Authority, among other things, is expected to control pollution of the rivers, lakes and lagoons of the delta, the main source of which is clearly the petroleum industry. Yet government policy encourages the production of as much petroleum as possible with little or no interference with industry's operations. The basic contradiction and hypocrisy involved here amply illustrate the set of constraints which still keep the Niger Delta area backward

in spite of its rich petroleum resources. Perhaps the inclusion of pollution control in the terms of reference of the Board is clearly an indication or admission that petroleum-related pollution has become so serious here that its destructive impact on local economy now retards social and economic development more than any other factor.

Therefore, present petroleum policy must aim both to eliminate long-standing structural disabilities that exist, and also to ensure that this oil-rich region is not hindered or retarded, relative to other regions of the country, as a consequence of oil operations. The rest of our study undertakes to determine how far this logic holds true.

NOTES

<sup>1</sup>*Geographical Literature On Nigeria, 1901 - 1970: An Annotated Bibliography*; G. K. Hall & Co., Mass., 1974, p. 214 by Aiyepoku, W. O. can be a very useful tool for anyone trying to locate relevant geographic material on Nigeria. A number of works such as those by P. N. Ioeje (*A New Geography of Nigeria*, Longmans, Ibadan, 1976, p. 221); R. K. Udo (*Geographic Regions of Nigeria*, London, Heineman, 1970, p. 212) and K. M. Buchanan & J. C. Pugh (*Land and People in Nigeria - The Human Geography of Nigeria and Its Environmental Background*, London, UOP, 1955, p. 252) have attempted a regional synthesis of the country, but information offered is often scrappy and very basic. Specialist treatment of a broad range of topics, particularly of current interest, is found in professional periodicals such as the *Nigerian Journal of Economic and Social Studies*, Ibadan; *The Nigerian Geographical Journal*, Ibadan; *The Nigerian Journal of Economic and Social Research*, Ibadan; *ODU: University of Ife Journal African Studies*, OUP. Ibadan; *SAVANNA: A Journal of the Environmental and Social Sciences*, Ahmadu Bello University, Zaria.

<sup>2</sup>Embassy of the Federal Republic of Nigeria, *Federal Nigeria*, vol. 4, No. 1, July - August - September, 1977, p. 17.

<sup>3</sup>Advantages of location include both international shipping charges and security of supply routes particularly with the constant threat of imminent upheaval in the Middle East. For further information see S. R. Pearson, *Petroleum and the Nigerian Economy*, Stanford University Press, Stanford, 1970, pp. 18 - 21.

<sup>4</sup>The "North" and "South" mentality, based on the fundamental physical and cultural contrast between the north and the south in most of West Africa, has assumed economic and geo-political significance in Nigeria with the tendency of dividing the country into two economic and political blocks. For the original notion of this dichotomy, see B. W. Hodder, "West Africa: Growth and Change in Trade" in Prothero, R. M. (ed), *A Regional Geography of Africa: Regional Essays on Fundamental Characteristics, Issues and Problems*, London, Routledge & Kegan Paul, 1969, pp. 417 - 418.

<sup>5</sup>Embassy of the Federal Republic of Nigeria, *Ibid*, p. 17.

<sup>6</sup>G. K. Helleiner, *Present Agriculture, Government and Economic Growth in Nigeria*, Richard D. Irwin, Inc., 1966, Homewood, Illinois, p. 320.

<sup>7</sup>See *Africa: An International Business, Economic and Political Magazine*, No. 73, September 1977, p. 80.

<sup>8</sup>J. C. C. Hartoungh discusses some aspects of rural economic specialization between men and women among the Ijaws of the Niger Delta. See *Report On The Agricultural Development of the Niger Delta Special Area*, Niger Delta Development Board, 1966, p. 4.

<sup>9</sup>The construction of the Kainji Dam, some 600 kilometers north on the Niger River has only slightly relieved flood disasters in this region. Below the dam, numerous other tributaries of considerable volume, such as the Benue River, as well as heavy run-off from the equatorial forest rains of southern Nigeria, often swell up the depleted Niger waters before it empties into the Atlantic ocean. Thus exceptionally rainy years result in very bad floods.

<sup>10</sup>Rivers State Ministry of Information, *Rivers State of Nigeria: Spotlight*, Port Harcourt, May 1, 1977, p. 3.

<sup>11</sup>See, for example, Alagoa, E. J., *A History of the Niger Delta*, Ibadan University Press, Ibadan, 1972, p. 231.

<sup>12</sup>Barry Floyd, *Eastern Nigeria*, MacMillan, London, 1969, p. 241.

<sup>13</sup>\_\_\_\_\_, *Ibid*, p. 199.

<sup>14</sup>Among the patrilineal peoples of Ikwerre, Etche, Ogba and Egbema of the upland region, usually only sons have traditional rights of inheritance, especially of landed property. But under special circumstances, such as a family's property standing the risk of being inherited by their distant or even outside relations because there are no sons in the immediate family to inherit and retain such property, then certain ceremonial rites are performed to instate or invest the eldest daughter with all the rights and privileges only sons have. In that case she can no longer marry, but can raise children in an effort to produce sons who will further secure the family's possessions. The society sanctions the entire procedure hence all male children begotten are regarded as legitimate and can inherit any property. This practice is also common among the Ibos and further emphasises the cultural affinity between the two areas.

<sup>15</sup>It is instructive to note here that the Niger Delta, strictly speaking, represents a physical region or area which has been built up some tens of thousands of years ago from sediments brought down by the Great Niger River and its tributaries. Thus the Delta stretches beyond the present borders of the Rivers State into Bendel State. It is essentially occupied by the various dialect subdivisions of the Ijaw ethnic group, with the western Ijaws mainly in Bendel State and the eastern Ijaws in the Rivers State. But in spite of political and administrative differences, all of the Delta shares the common

characteristics of economic and social backwardness. In designating it as a Special Area for preferential development, other adjacent areas have been included which are only similar to it structurally but not physically. Ogoni Division is one of such areas.

<sup>16</sup>See J. C. C. Hartoungh, *Report on the Agricultural Development of the Niger Delta Special Area*, NDDB, Port Harcourt, 1966, p. 1.1.

<sup>17</sup>Federal Printer, Lagos, *Niger Delta Basin Development Authority: Ceremony of the Official Launching*, June 17, 1978, p. 12.

## CHAPTER II

## PETROLEUM IN NIGERIA

The assessment of the petroleum industry in Nigeria naturally implies an examination of the factors contributing to, and impinging on it. Since petroleum is the key to what is happening in modern Nigeria, we need to know the size of the industry we are dealing with; we need to know the nature and size of gains from the industry and who gets them; we need also to know the characteristics and circumstances of the international petroleum industry in Nigeria.

The following issues, which are interrelated, merit consideration:

1. How did petroleum suddenly start to figure prominently in the Nigerian economy and society?
2. What has been the industry's growth record as reflected in Nigeria's financial and economic positions? In other words, what has been "the size of the pie" in which local economies and societies could share over time?
3. Who owns and operates the industry under what set of circumstances? Is the modern petroleum industry characteristically capable of linking with and modernizing local traditional economies?

In considering these issues we shall rely substantially on data collected from both public and private sources. We shall draw from materials and insight gained personally in the field since there is often considerable discrepancy between official publications and private documentation.<sup>1</sup>

Development of Petroleum in Nigeria (1937 - 1977)

Although the history of petroleum in Nigeria dates back to 1908, commercial development can be said to fall into three distinct periods: 1937 - 1964; 1965 - 1969 and 1970 to the present. Detailed accounts of petroleum's historical development have been written by others elsewhere;<sup>2</sup> here we will only outline the salient features of the three stages of development.

Geologists had long suspected that there might be oil in coastal Nigeria, but world demand and strategic conditions did not encourage serious prospecting early enough. Actual search did not begin until 1908, when a German Company, Nigerian Bitumen Corporation, drilled fourteen wildcat wells in what is today Lagos State before ceasing operations with the outbreak of World War I in 1914.<sup>3</sup>

The first phase of serious development started in 1937 and lasted up to 1964. This period was marked by the entry of the Exploration Parties of Shell/D'Arcy -- a consortium owned equally by Royal Dutch Shell and British Petroleum which later became the Shell-BP Petroleum Development Company of Nigeria. The techniques developed by then in the Middle East were applied and, as usual in the Middle East, one exploration concession (Oil Exploration License or OEL) covering the whole country was issued to Shell-BP in 1938 by the colonial administration.

The Company immediately started preliminary geological reconnaissance, but was delayed by the outbreak of the Second World War. Between 1946 and 1951 intensified geophysical activity and surveys resumed. It was not until 1951 that Shell-BP drilled the first wildcat in Nigeria which came up dry. Since the Company's concession covered

the whole country, it shifted from one geological area to another, from the cretaceous areas rimming the Niger Delta and then on the tertiary area of the delta itself (see Figure 2.1).

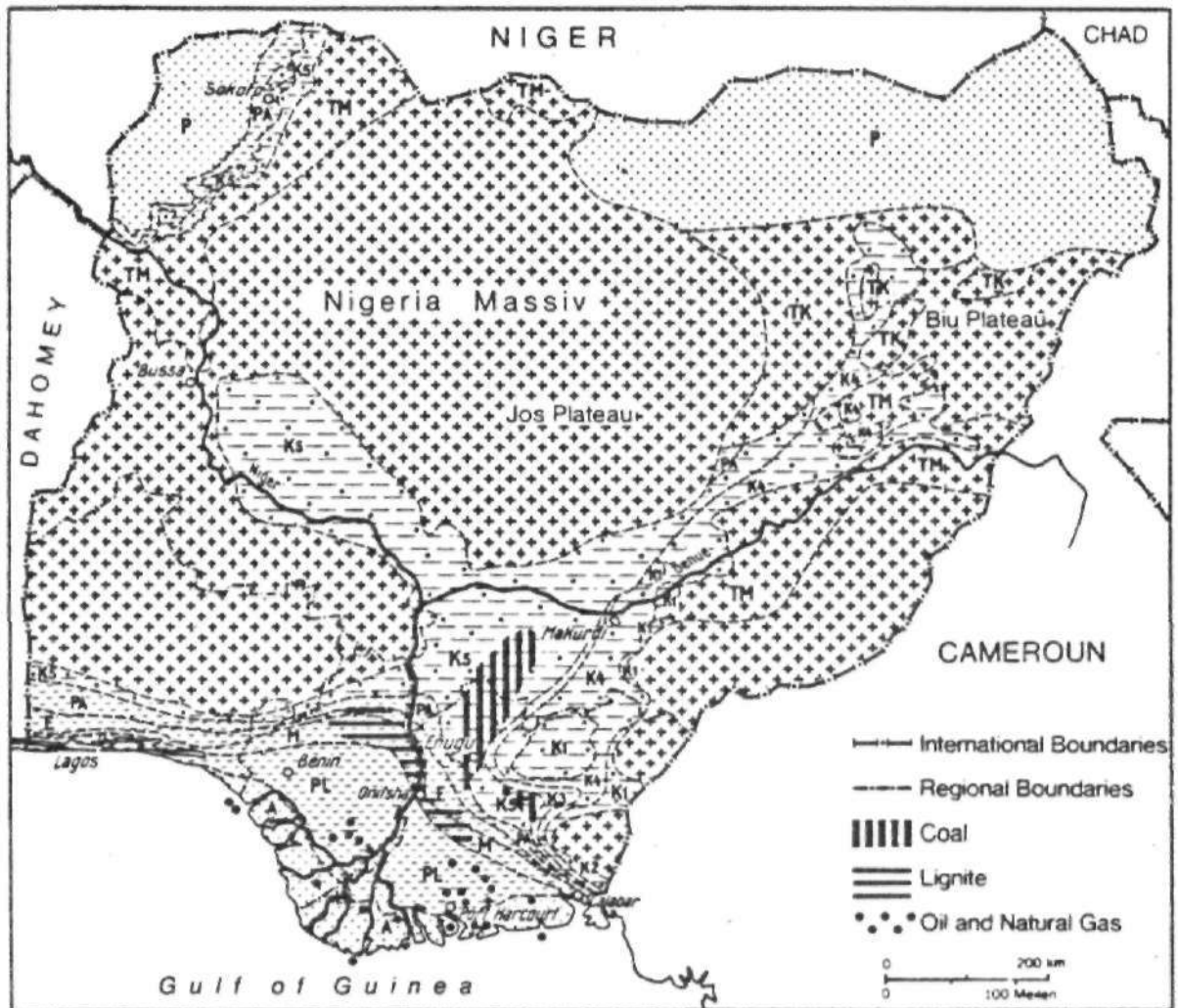
Oil in commercial quantity was only discovered in 1956 at Oloibiri in the present Rivers State of Nigeria after the Company had spent the equivalent of about US \$75 million in exploration alone.<sup>4</sup> The discovery did not indicate much of a substantial oilfield. However, the Suez Canal crisis was developing at that time and oil produced free of Arab territorial interference or avoiding transport through the Suez Canal carried a political premium value.

The concessionaire decided, therefore, to go ahead and develop production immediately and to further intensify exploration for more oil. Soon additional fields were discovered which made the original development decision worthwhile. The first oil shipment to Europe from Bonny was in 1958.

Naturally, the success of Shell-BP induced other companies, including both so-called majors and independents, to vie for concessions in Nigeria. In accordance with the provisions of the Nigerian law enacted prior to independence, the original concessionaire had to convert his exploration concession (OEL) into a mining concession (oil mining lease or OML) before beginning production. Thus Shell-BP had to reduce its original concession area first to 103,600 square kilometers and subsequently to 38,850. The relinquished areas were then offered by government to other companies as exploration concessions.

Between 1958 and 1962 other international oil companies entered the scene in large numbers, although Mobil Oil Company in particular had carried out reconnaissance work in the northeastern corner of

# Geological Map of Nigeria<sup>1</sup>



- Quaternary**
- A Alluvium
  - P Pleistocene
- Tertiary**
- PL Pliocene
  - M Miocene
  - E Eocene
  - PA Paleocene
  - TK Continental Cenozoic

- Cretaceous**
- Ks Campanian – Maestrichtian
  - Ka Turonian
  - K3 Santonian
  - K2 Cenomanian
  - K1 Albian
  - JM Continental Mesozoic
  - + Precambrian

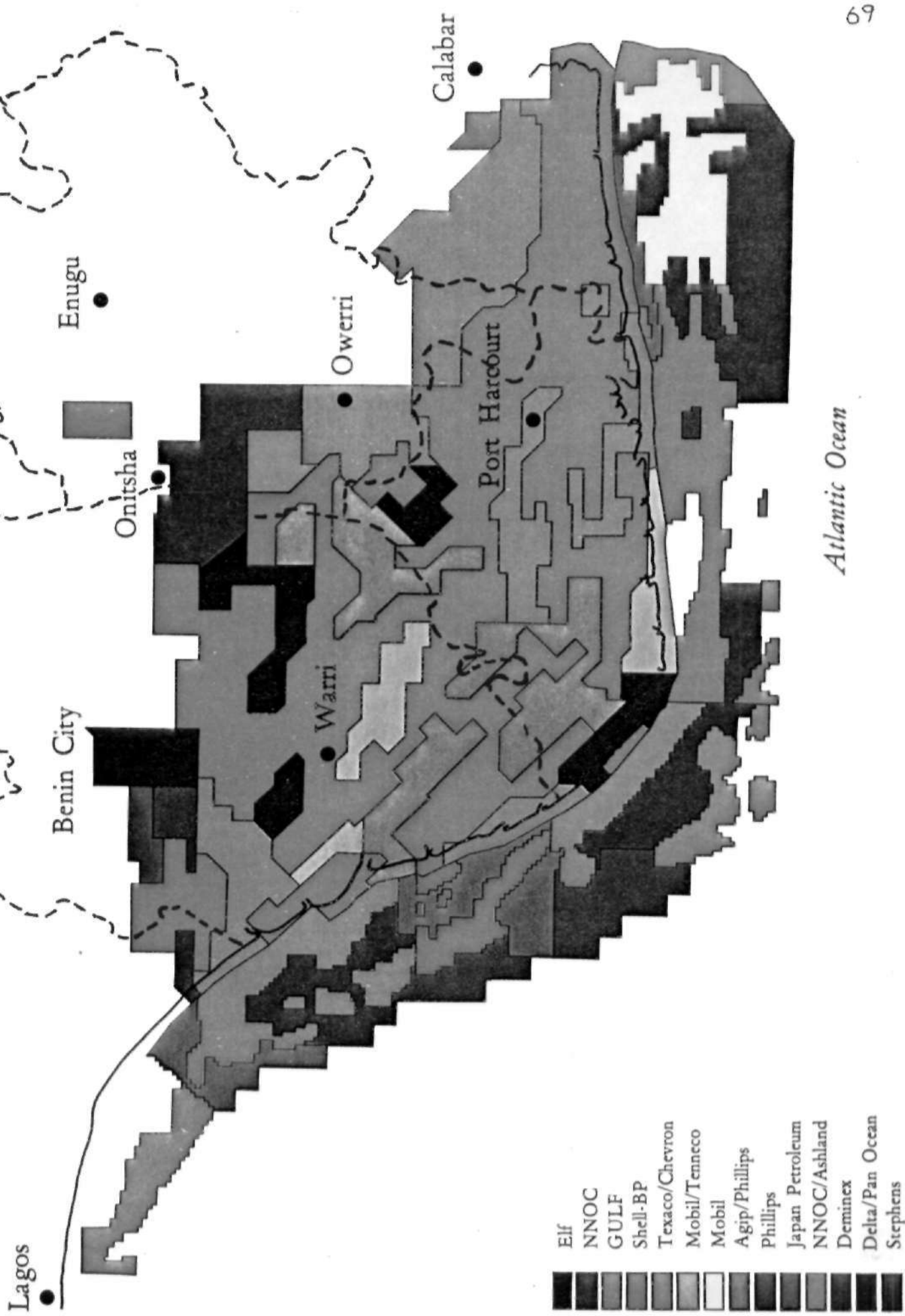
Nigeria in the mid 1950's before shifting focus to the coastal area of today's Lagos State. Other companies that came included Tenneco, Agip, Safrap (now Elf), Philips, Mobil, Texaco, Ashland, Union Oil, Gulf, and some Japanese oil companies. The new entrants would have to relinquish half of their exploration concessions in order to convert the remainder into a mining concession (OML). The relinquished portion would then be offered to yet other companies under the same conditions of relinquishment. The resulting pattern of mining and exploration concessions of the various companies active in Nigeria is geographically very complex as we can see in Figure 2.2.

Also in 1960 Nigeria divided its offshore continental shelf into twelve blocks about 2,590 square kilometers each. These were taken up in various stages by concessionaires. Amoseas Oil Company first struck oil offshore in 1963, but it was Gulf's strike at Okan in 1965 that really marked the era of substantial offshore production. In general, exploration and production permits cover approximately 181,300 square kilometers out of which 30 per cent or 54,390 km<sup>2</sup> are located offshore.<sup>5</sup>

It is obvious then that the first phase of petroleum development in Nigeria, indeed the most significant phase, was dominated by extensive and expensive exploratory and prospection activities by private and some state-owned foreign oil companies, leading to the internationalization of the industry. Shel-BP was the dominant force. Although production was comparatively small at this point, crude was exported mainly to traditional markets overseas, that is, Britain and Holland.

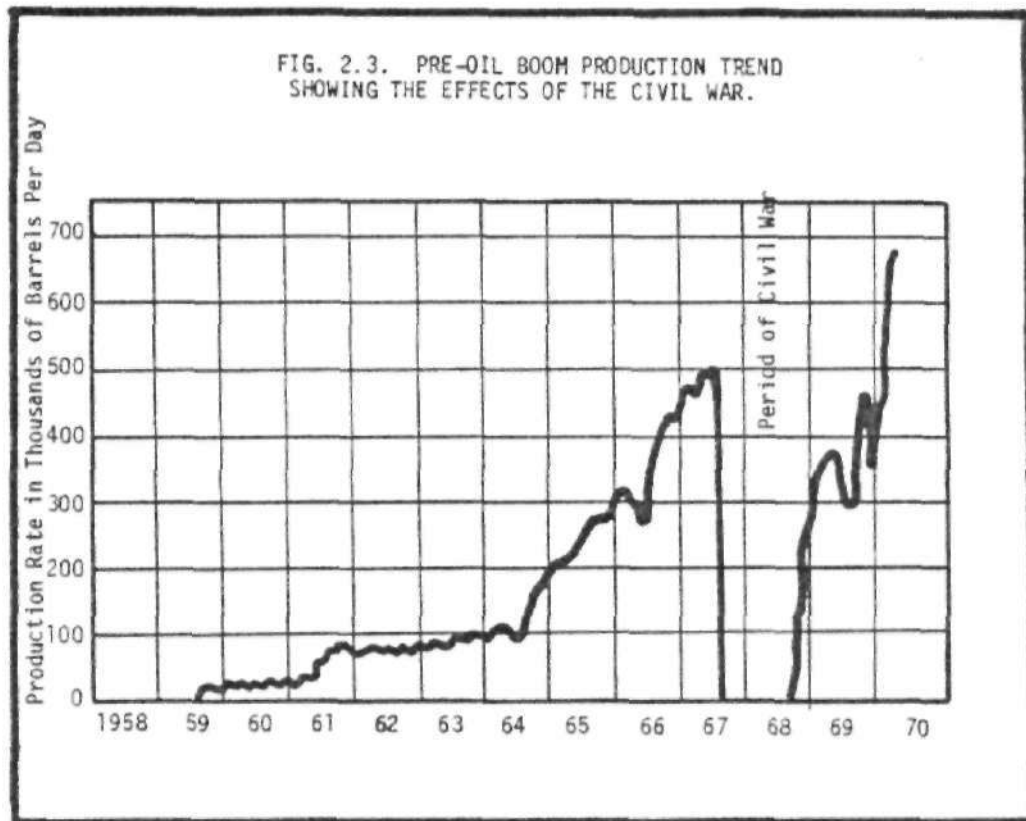
The second phase -- 1964 to 1966/67--was essentially the beginning of active production and export both by the old and new concessionaires, although exploration and prospecting still continued vigorously.

FIG 2.2 : NIGERIA - MAP OF OIL CONCESSIONS (1977)



Offshore production increased significantly. Nigerians were surprised to find that all of a sudden the country was becoming a very important source of international petroleum. As we shall see later, petroleum started to enter significantly into political and economic calculations. Consequently, before the upward trend in production had time to peak, the Nigerian Civil War broke out, partly as a result of political calculations centered on petroleum prospects.<sup>6</sup> As Figure 2.3 (which represents only Shell-BP's production -- by far the largest single producer) indicates, production and export dropped to almost nothing, except for a trickle which was produced offshore by Gulf from a location far removed from the war theater.

The period from 1970, that is, immediately after the civil war, to the present day represents the third phase in the development of petroleum in Nigeria. Favored by the series of political and military confrontations in the Middle East culminating to the Arab Oil Embargo to the Western consuming nations in 1973, production in Nigeria leaped dramatically upward as soon as hostilities ceased. Competition among the various foreign oil companies increased -- every available exploration concession was picked up fast. Shell-BP, however, still managed to keep the edge. Although actual production had fluctuated over this period, Nigeria shot into number one position in Africa over Libya by the end of 1973 (see Figure 2.4). Nigeria also became a member of the Organization of Petroleum Exporting Countries (OPEC) in 1971 on account of her increasing production and importance. The so-called "oil boom" had begun and was to reshape the economic and political structures of the country very drastically.



Source: The Shell-BP Petroleum Development Company of Nigeria, Ltd., Lagos.

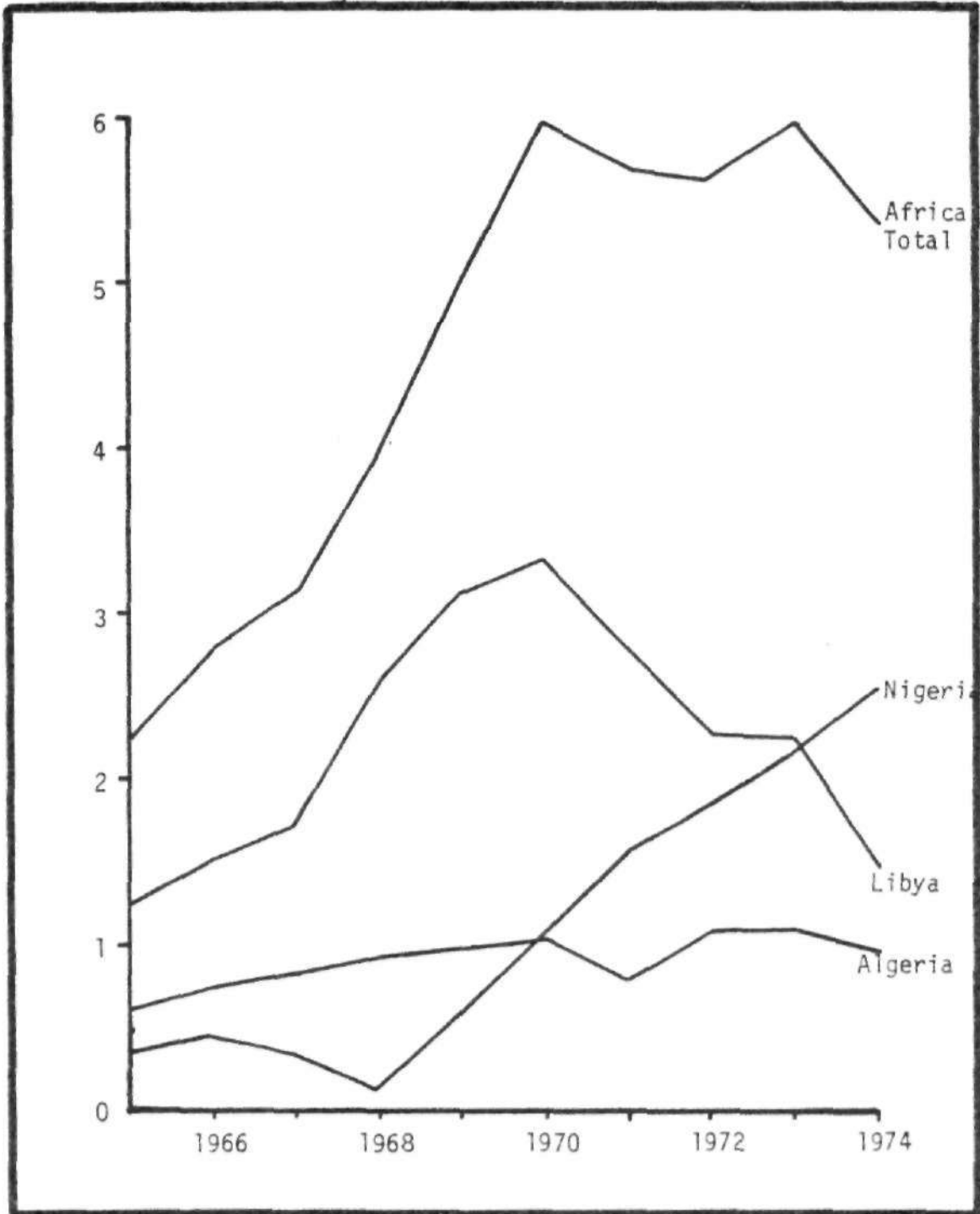
## Crude Production and Export

International demand for the Nigerian oil has been a critical factor in determining the level of production and export. Many factors favor high level demand for the Nigerian crude. As we saw earlier, Nigeria's location on the West Coast of Africa has the advantage of low transport costs and security to her contemporary primary markets in North and South America and Europe since she is geographically close and her oil is not subject to the Suez Canal or the long route round the Cape of Good Hope. Nigerian crude also is relatively sulfur-free -- a feature of considerable importance as industrial consuming nations become more concerned with air pollution. As long as political conditions remain dangerously unstable in the Middle East, Nigeria can be expected to obtain much more than its proportional share of the growth in the international demand for oil, and even the associated gas.<sup>7</sup>

The first oil exports in 1958 totaled about 1874.8 thousand barrels or the equivalent of 253.5 thousand metric tons. Both Table 2.1 and Figure 2.5 show how production increased steadily, but more so from 1964 to 1966 before the civil war sharply reduced production to almost a trickle in 1968, mainly from the huge Gulf's Okan offshore field in the present Bendel State. Most of the crude was exported except for small proportion that began to be refined at home in 1966 after the construction of the first refinery at Elesha Eleme in the Rivers State.

The Civil war, which ended in 1970, only temporarily delayed the impending "oil boom"; it did not prevent it. In 1968 production was only 137,800 barrels per day, but this much went a long way to

FIG. 2.4. LEADING AFRICAN CRUDE OIL EXPORTERS  
(million barrels per day)



Source: 1. Petroleum Encyclopedia, 1975.  
2. American Petroleum Institute, Basic Petroleum Data Book, April 1978.

sustain the federal war effort. Soon after the war, it was reckoned that petroleum should provide the means of repairing the damages done to the economy and the infrastructure and settling debts incurred as well. Thus the Nigerian government on the one hand and the foreign oil companies on the other had strong and compelling incentives to work to achieve a much increased rate of production. Again, no sooner was normal production restored than the Middle East erupted in 1973 which more than anything else accelerated the pace of production and uplift from Nigeria.

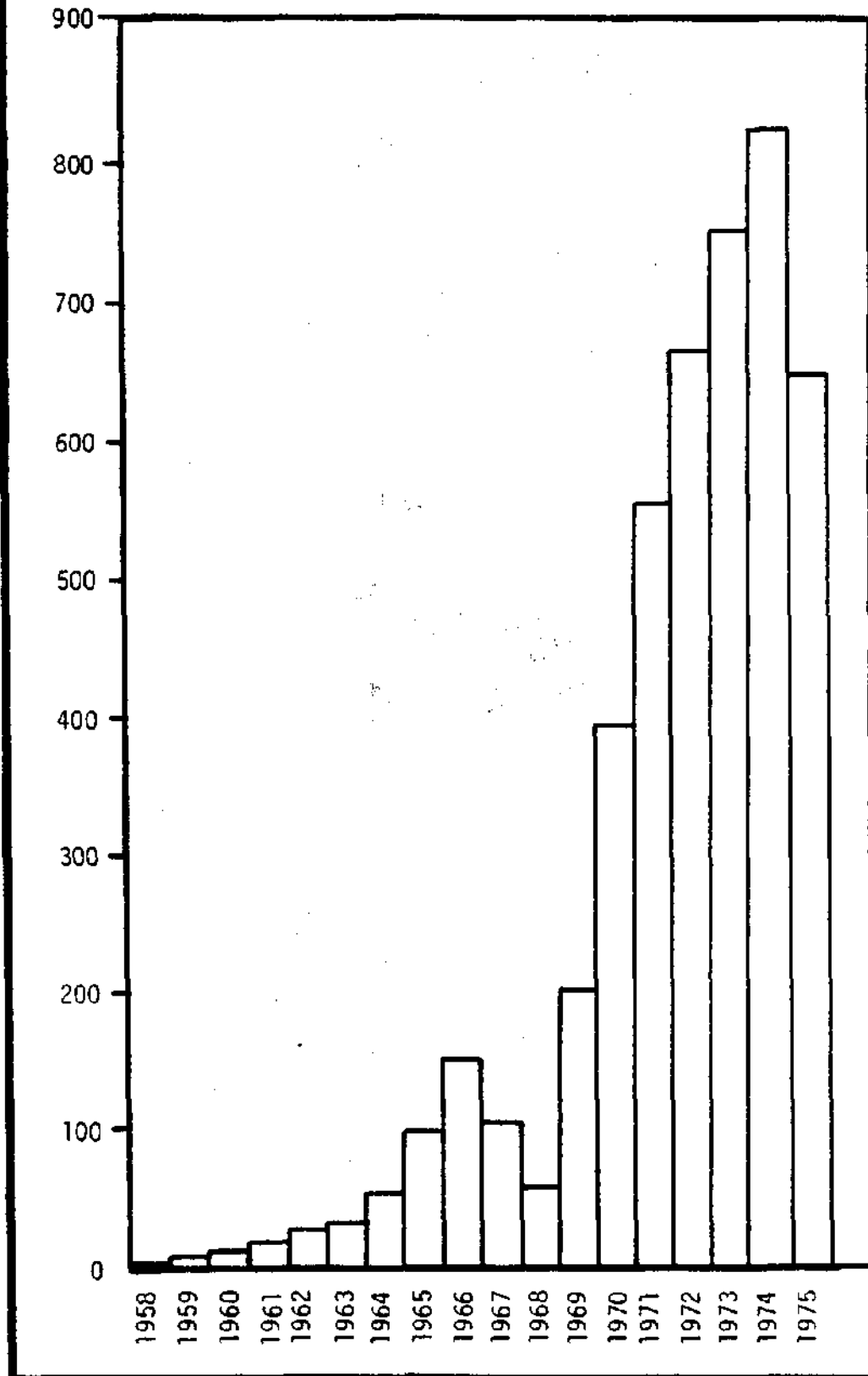
By 1970 annual output was already over 395,835,825 barrels (te, 491,309 metric tons) as we can see from Table 2.1. In 1971 Nigeria moved into the ninth place as a world oil producer, when output reached 1.68 million barrels per day (bpd) up 23 per cent from 1970. The boom continued and by April 1972 production had reached 1.8 million bpd -- 300,000 bpd up from the previous April. The 2 million bpd mark was reached and passed the following year, 1973. In March of that year output was averaging 2.053 million bpd and it was expected that more than 2.3 million bpd would be reached by the end of the year.<sup>8</sup>

Unlike various other members of the OPEC, which cut production deliberately in 1974, Nigeria's output rose 10 per cent to an all time high of over 2.4 million bpd or about 112 million metric tons. This represented 3.5 per cent of total world production and 6.7 per cent of OPEC output (Fig. 2.6). By the end of the year Nigeria had become by far the largest oil producer in Africa, bypassing Libya who had deliberately cut production to only 1.491 million bpd in keeping with OPEC's strategy to hold down production so as to force prices up. As we noted earlier, although Nigeria had become the fourth leading

Table 2.1. Crude Oil Production in Nigeria.  
(1958 - 1976)

<u>Year</u>	<u>Barrels</u>	<u>Metric Ton</u>
1958	1,874,834	253,522
1959	4,096,518	553,461
1960	6,367,187	860,431
1961	16,802,326	2,370,526
1962	24,623,691	3,327,525
1963	27,911,319	3,772,091
1964	43,992,108	5,945,526
1965	99,353,794	13,426,186
1966	152,428,168	20,598,401
1967	116,553,292	15,750,445
1968	51,907,304	7,014,500
1969	197,204,486	26,649,255
1970	395,835,825	53,491,309
1971	568,878,217	90,444,564
1972	665,283,110	185,771,743
1973	749,733,127	119,198,246
1974	824,144,497	131,028,729
1975	651,672,657	103,512,458
1976	751,900,000	119,538,950

Source: Ministry of Petroleum Resources, Lagos, Nigeria - monthly and annual petroleum information.

FIG. 2.5. ANNUAL CRUDE OIL PRODUCTION  
(1958 - 1975)

Source: Based on Table 2.1

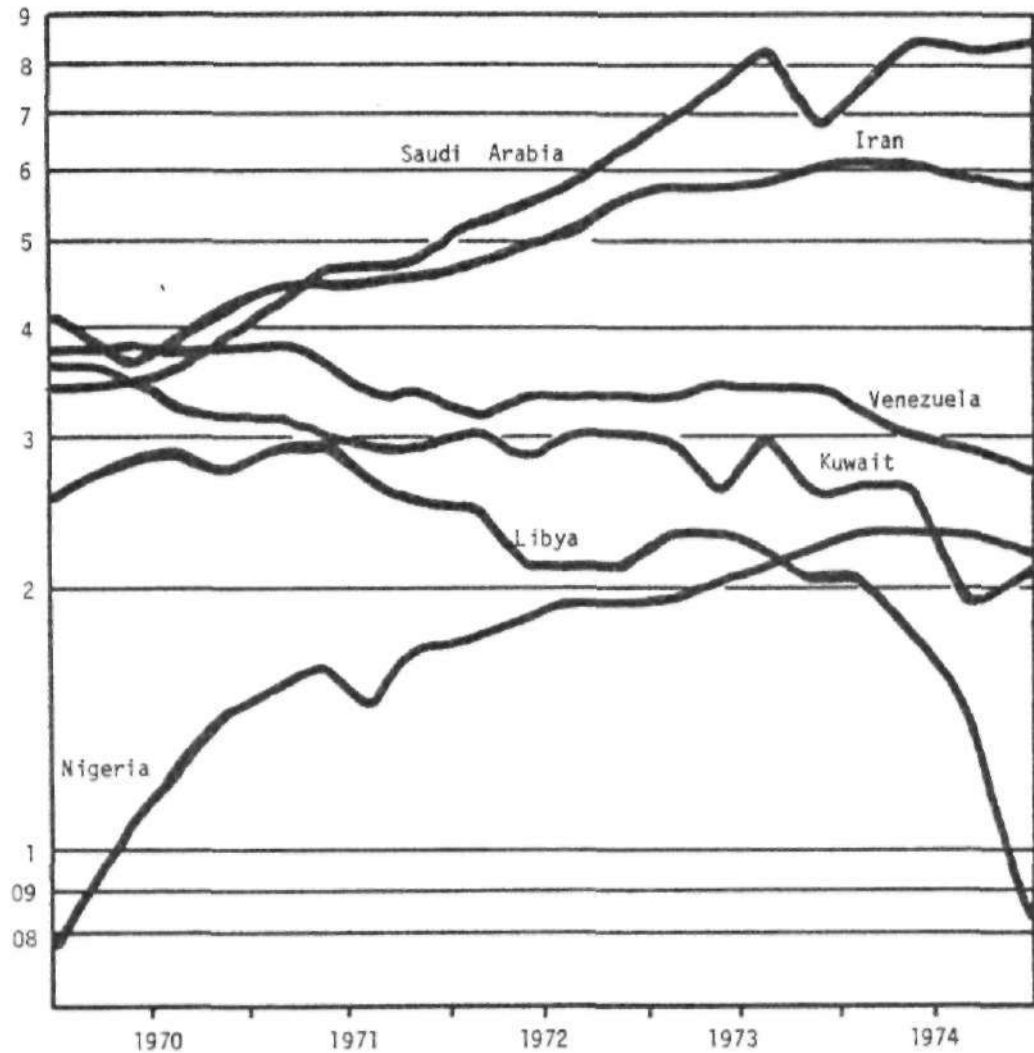
exporter in the OPEC ranks following Saudi Arabia, Iran and Venezuela, she could ill afford to comply with the Organization's directive to limit production because of the role of petroleum revenues in planning for the post civil war economic recovery.

However, during the first months of 1975, there was a noticeable decline in oil output. This is clearly evident in Table 2.2 and Figure 2.7 which compare 1975 to 1974 record year. Crude production slipped steadily from the previous month's level until June. Altogether, annual production fell by as much as 20.96 per cent with offshore production accounting for 23.9 per cent of average daily production as against 27 percent in 1974.

At first it was thought that the decrease in production was entirely due to government imposed cutbacks to conserve reservoirs, partly following a recommendation by a government appointed study group which submitted that "in very strict terms, the criteria for fixing the ceiling for production rates should be such that we do not produce one barrel of oil more than is necessary to generate the revenue required to meet the nation's budget".<sup>9</sup> But the truth, however, was that Nigeria was having difficulty selling her over-priced crude.<sup>10</sup> Moreover, the world recession forced cutbacks in all OPEC production.

As 1975 progressed, Nigeria's output returned to 1.5 million bpd. In mid 1975 the government was obliged to agree to requests from oil companies such as Gulf Oil to cut down production since they simply could not find markets for their supplies of crude. This trend is very evident from the production statistics of some of the companies active in 1975 as displayed in Table 2.3, particularly Shell-BP, Texaco and Ashland. It is instructive to emphasize this phenomenon because since the OPEC wrested from the multinational oil companies the power and

FIG. 2.6. CRUDE OIL PRODUCTION OF SELECTED OPEC COUNTRIES.  
(quarterly figures in millions of barrels per day)



Sources: 1. Annual Abstract of Statistics, 1974; Federal Republic of Nigeria, Lagos, Nigeria, p. 42.  
2. Oil and Gas Journal.  
3. Petroleum Press Service.

Table 2.2. 1975 Crude Oil Production By Month.

Period	Total Barrels	Daily Average (BOPD)			% Change vs. Previous Month
		Offshore	Onshore	Total	
January	61,482,456	423,046	1,560,259	1,983,305	- 3.8
February	50,322,267	399,026	1,458,198	1,797,224	- 9.4
March	52,983,871	388,988	1,320,169	1,709,157	- 4.9
April	48,663,231	443,844	1,178,264	1,622,108	- 5.1
May	47,752,011	348,566	1,191,821	1,540,387	- 5.1
June	48,586,800	414,320	1,205,240	1,619,560	+ 5.1
July	50,663,718	413,256	1,221,057	1,634,313	+ 0.9
August	54,158,172	447,912	1,299,158	1,747,070	+ 6.9
September	57,611,942	482,526	1,437,872	1,920,398	+ 9.9
October	59,190,102	479,845	1,429,513	1,909,358	- 0.6
November	58,609,575	451,957	1,501,695	1,953,653	+ 2.3
December	<u>61,361,715</u>	<u>468,851</u>	<u>1,510,559</u>	<u>1,979,410</u>	<u>+ 1.3</u>
1975	651,386,860	425,634	1,358,987	1,784,622	- 20.96
1974	824,144,497	610,000	1,645,100	2,255,079*	+ 10.0**

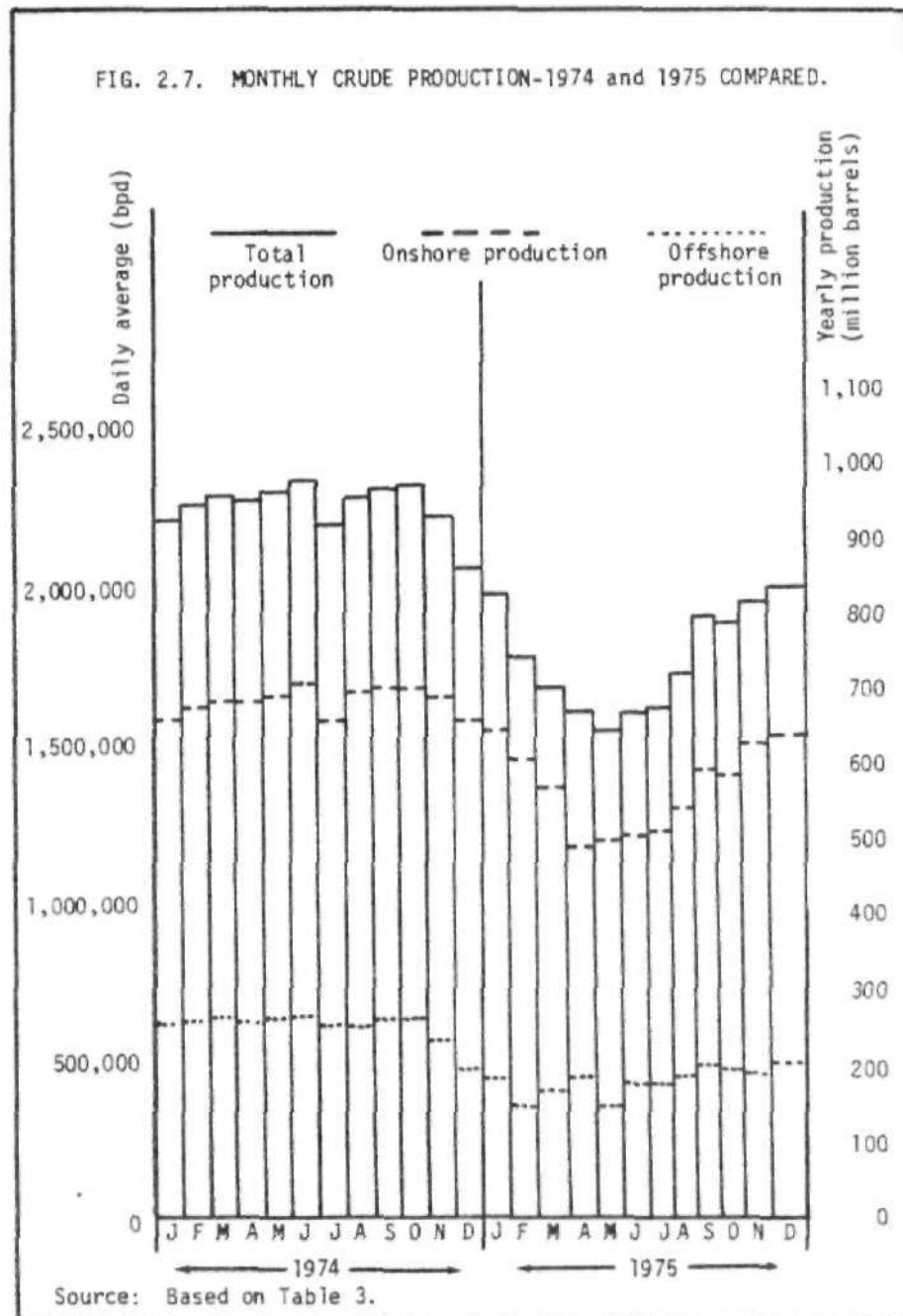
\* Approximately 2.4 million during the last quarter of the year.

\*\* Compared to previous year.

Source: 1. International Petroleum Consultants: Nigeria-Annual Review, March 1976, p. 67.

2. Ministry of Petroleum Resources, Lagos, Nigeria, Monthly Petroleum Information, 1975.

FIG. 2.7. MONTHLY CRUDE PRODUCTION-1974 and 1975 COMPARED.



incentive to determine crude prices, it has been assumed, particularly in Nigeria, that price stability and hence stable government revenue should be automatic or at best will henceforth fluctuate always upward in favor of exporting countries. The flaws in this assumption and its repercussions on economic development planning, as well as on the Nigerian society generally, will be pursued later.

However, declining production from the 1974 all time high continued up to 1977. In the last quarter of 1976, when total production stood at 188.5 million barrels, the average daily rate rose slightly to 2.072 million barrels. Production during the first and second quarters of 1977 was respectively 199.3 million and 202.5 million barrels which represented an average daily production rate of 2.22 million barrels.

It can be seen, therefore, that since 1973 the average production capacity of the Nigerian petroleum industry has been in the region of 2 million barrels a day. This is substantial by every standard. The future is not quite certain as the world market for crude continues to be glutted both as a result of increasing production from the North Sea, Alaska and other non-OPEC sources like Mexico and China, and from the counter-offensive of stockpiling by the consuming nations. Also plaguing the industry generally is the prospect of a major world economic recession and the likelihood of the development of alternative energy sources as crude prices rise to a level which makes other energy technologies become economically and strategically justifiable. One would expect, therefore, that output, which is essentially determined by demand and the size of lifting, would continue to be affected by events in the Middle East particularly and in the consuming nations generally.

**Table 2.3. 1975 Crude Oil Production By Company (In BOPD).**

Month	AGIP/							Total
	Shell/BP	Gulf	Mobil	Phillips	Elf	Texaco	Ashland	
January	1,314,912	226,562	196,848	166,164	79,184	--	--	1,983,305
February	1,216,795	228,218	110,808	165,945	75,459	--	--	1,797,224
March	1,082,070	226,295	162,693	158,142	79,957	--	--	1,709,157
April	943,793	224,808	219,036	157,940	76,531	--	--	1,622,108
May	979,960	166,233	178,254	152,814	59,047	4,080	--	1,540,387
June	995,332	185,657	218,381	144,467	57,141	10,282	8,300*	1,619,560
July	992,809	206,444	195,829	146,776	71,628	10,983	9,845	1,634,313
August	1,059,633	244,697	195,636	150,470	75,486	10,430	10,718	1,747,070
September	1,183,558	262,650	223,358	151,112	79,263	8,720	11,738	1,920,398
October	1,176,360	264,495	219,461	146,862	74,897	14,394	12,889	1,909,358
November	1,230,892	246,437	209,967	164,276	75,120	13,552	13,408	1,953,653
December	1,229,592	250,664	220,987	176,257	74,330	15,046	12,533	1,979,410
1975	1,116,638	227,736	196,369	156,719	73,164	7,341	6,655	1,784,622
1974	1,398,499	367,592	247,967	155,097	83,728	2,192	--	2,255,079

\* Estimated

Sources: 1. Ministry of Petroleum Resources, Lagos, Nigeria: Monthly Petroleum Information - January to December 1975.

2. Foreign Scouting Service: Nigeria-Annual Review, March 1976 - production.

Estimated recoverable reserves of petroleum in Nigeria, based on the most recent level of exploration, are 3 billion metric tons.<sup>11</sup> Table 2.4 shows that proven estimates increased from 3 million metric tons in 1958 to 408 million in 1965. Based on the most recent figure, it seems that the present level of production could be maintained, even without new discoveries, until after the turn of the century.<sup>12</sup> Thus discussion concerning the strategic value and significance of the industry, or its impacts, will have to contend, not with the specter of any imminent physical exhaustion, but with the threatening likelihood of "King" petroleum being dethroned as the world's primary energy resource.

Petroleum occurs in association with natural gas. Unassociated natural gas also occurs in large quantities especially on the Island of Bonny in the Rivers State and in the area around Ughelli and Escravos in Bendel State. But one of the most conspicuous forms of waste in modern Nigeria is the burning off of huge volumes of natural gas in the absence of any sizeable domestic market or a liquefaction plant for export. It is estimated that about 56 million cubic meters of natural gas is flared in a day.<sup>13</sup> This rate of gas will continue as long as Nigeria produces oil because, for reasons which are not immediately relevant here, plans to liquefy and export natural gas from Nigeria have often fallen through, partly due to bureaucratic delays and entanglements and subsequent changes in prospective customers' energy equations.

However, since 1963, a small number of utilities, particularly the National Electric Power Authority (NEPA) and some industrial establishments in the immediate neighborhood of the gas fields have been buying small amounts of gas from the oil companies. Amounts

consumed are very small indeed compared to total gas production as can be seen clearly in Table 2.5. Over 98 per cent of the natural gas in Nigeria from the perspective of this study is not so much the waste that is occurring, which is serious, but the level of environmental and ecological stress as well as economic ruin that result from daily gas flares.

It is not easy to determine precisely how much of the total Nigerian crude output is accounted for by the Rivers State, at least from official sources. This is because production figures, in the post civil war period, are not reported to reflect any individual state's particular contribution in order to deliberately diffuse the type of sectional political squabble Pearson wrote about concerning Biafra's attempt to secede from the Nigerian federation in 1967. However, by isolating wells within the political boundary of the state and summing up their production figures on a yearly basis, we can establish that the Rivers State in 1977 was accounting for about 42 per cent of the total national onshore production (refer to Fig. 2.2). Offshore wells anywhere are legally regarded as located on Federal territory.

#### Petroleum Revenue and the Economy

The second question that this chapter sets out to probe relates to the size of revenues and actual and potential economic impacts of the petroleum industry. As a first step in this direction, it is instructive to look at Table 2.6 to determine how government calculates and derives its revenues from petroleum.

Nigeria's policy with regard to the price of oil is largely in line with that of other members of OPEC. The posted price, which is the basis for calculating the royalties and taxes to be paid by the

Table 2.4. Crude Oil Reserves Of Nigeria: 1958-76.

<u>Year</u>	<u>Crude Oil Reserves</u>	<u>Crude Oil Production</u>	<u>Duration in Years</u>
1958	3	0.256	12
1959	11	0.533	20
1960	21	0.837	25
1961	41	2.234	18
1962	55	3.274	17
1963	69	3.712	19
1964	137	5.858	23
1965	409	13.324	31

Source: Schatzl, L. H. - Petroleum in Nigeria, p. 23.

Table 2.5. Utilities and Industries Using Natural Gas  
as a Source of Energy - January 1976  
(thousands of cubic meters)

<u>Utilities and Industries</u>	<u>Natural Gas Consumed</u>	<u>Field Producing Natural Gas Consumed</u>
A. Utilities:		
National Electric Power Authority		
Afam	13,510.6	Afam
Ughelli	<u>16,705.1</u>	Ughelli East
Sub Total (Utilities)	30,215.7	
B. Industries:		
Rivers State Development Corporation		
Trans-Amadi	668.1	Apara
Nigerian Petroleum Refining Corporation		
Alesa-Eleme	2,343.1	Bomu
Nigeria Breweries - Aba	188.2	Imo River
Lever Brothers - Aba	282.0	Imo River
International Equitables-Aba	112.6	Imo River
Associated Industries - Aba	505.7	Imo River
Textile Mills - Aba	21.5	Imo River
Glass Factory - Ughelli	<u>46.2</u>	Ughelli East
Sub Total (Industries)	3,399.3	
C. Total	33,615.0	
D. Total Gas Production (January 1976)	1,786,941.0	
E. Flarred Gas (January 1976)	1,753,326.0	
Percentage of Natural Gas	90.12	

Source: Republic of Nigeria - Ministry of Petroleum Resources,  
Monthly Petroleum Information, January 1976, pp. 7-18.

companies holding concessions, was fixed at US \$12.06 per barrel effective from April 1, 1975, compared to only US \$4.29 in September of 1973 or US \$2.17 in 1970 just before the OPEC wrested oil power from the International Majors.<sup>14</sup> The state oil revenue has since been raised further through several increases in posted prices, royalties and tax rates. The royalties were stepped up from 12-1/2 per cent to 20 per cent of the posted price, while the rates of income tax payable by the oil companies now amount to 85 per cent as compared to 55 per cent at the beginning of 1974.<sup>15</sup>

The renegotiation of governments participation in effect since April 1, 1974 has meant a further increase in revenue. In May 1974 it was made known that government had acquired 55 per cent stake in all companies. The maximum government participation had previously been 35 per cent. Thus whereas the government reaps US \$10 per barrel of the companies' own oil, the foreign concessionaries have to pay US \$11.60 per barrel when exercising their option to buy back the government's share of the output. Now with a daily output on the average of over 2 million bpd, government's petroleum revenue amounts to over US \$7.8 billion (about N5 billion) annually, which does not include other related taxes such as pipeline and port dues. Table 2.7 shows the petroleum sector's contribution to government revenue up to 1977. Notice the percentage rate of increase since 1970 which demonstrates both government's ability to take more revenues from the foreign oil companies and the increasing volume of production. Perhaps the overwhelming domination of current government revenues by petroleum related payments is better emphasized in Table 2.8 which presents a more detailed picture of government revenue sources for three comparative years. Two items -- Petroleum Profits Tax and Mining Royalties

Table 2.6. Nigeria: Oil Revenue per Barrel.  
(second quarter of 1975 for 34° gravity crude oil)

	<u>Equity Oil Share: 45%</u>		<u>Buy-Back Oil Share: 55%<sup>a</sup></u>
	US Dollars		US Dollars
1. Posted price	12.06	5. Buy-back price	11.60
2. Production costs <sup>b</sup>	0.80	2. Production costs <sup>b</sup>	0.80
3. Royalties (20% of posted price)	2.41		
Basis for taxation	8.85		
(1) - (2) - (3)			
4. Taxes (85% of basis figure)	7.52		
<hr/>		<hr/>	
Government take	9.96	Government take	10.80
(3) + (4)		(5) - (2)	

Average government take: US \$10.42

<sup>a</sup>Revenue of the National Oil Company from direct sales has been added as revenue from buy-back oil.

<sup>b</sup>Midway production costs.

Sources: 1. Shell-BP Petroleum Company of Nigeria (personal interview).

2. Deutsche Bank: Nigeria, 1975.

(mainly petroleum related royalties, rents, etc.) clearly dominate the picture.

The petroleum sector's domination of the economy is even more striking, even if more alarming, from other angles. According to a government publication, crude export alone accounted for 94 per cent of Nigeria's foreign exchange earnings in 1977.<sup>16</sup> Figure 2.8 shows petroleum sector's contribution to the country's foreign exchange receipt for three comparative years, against the background of other non-oil earners. In 1964, for instance, petroleum was responsible for less than 11 per cent of total foreign exchange earned. This proportion increased to 88 per cent in 1974 and 94 per cent in 1977. At the same time it contributed as much as 93 per cent of total domestic export by value, while employing less than 1.3 per cent of the country's modern sector employment (which is much less than 0.01 per cent of the total labor force).<sup>17</sup>

Economists prefer to measure the significance of petroleum to Nigeria by the proportion of the so-called Gross Domestic Product (GDP) which it provides.<sup>18</sup> They calculate that this has risen from 1.7 per cent in 1966 to 45 per cent in the 1974/75 financial year. This is far above the contributions of other primary activities such as agriculture, forestry and fishing, which together still employ over 85 per cent of the population (see Table 2.9). Just five years ago, agriculture alone contributed over five times as much as petroleum. Yet, this commanding position of the petroleum sector may be a matter for serious concern rather than one of jubilation since oil is a quick asset.

One of the major benefits to Nigeria from oil is that the flow of foreign exchange has removed a good deal of the balance of payments

Table 2.7. Petroleum Sector's Contribution to Government Revenue

<u>Fiscal Year</u>	<u>Federal Government Current Revenue (N '000)</u>	<u>Revenue from Petroleum (N '000)</u>	<u>Share of Petroleum in Total Revenue (%)</u>
1958/59	154,632	122	0.08
1959/60	177,648	1,776	1.00
1960/61	223,700	2,452	1.10
1961/62	228,962	17,070	7.46
1962/63	231,638	16,938	7.31
1963/64	249,152	10,060	4.04
1964/65	299,132	16,084	5.38
1965/66	321,870	29,175	9.06
1966/67	339,196	44,967	13.26
1967/68	300,197	41,884	13.95
1968/69	299,986	29,582	9.86
1969/70	435,908	75,444	17.31
1970/71	755,605	196,390	25.99
1971/72	1,410,911	740,185	52.46
1972/73	1,389,911	576,151	41.45
1973/74	2,171,370	1,549,383	71.36
1974/75	5,177,063	4,183,816	80.81
1975/76	5,252,297	4,568,425	86.98
1976/77	5,756,328	4,833,713	83.97

Sources: 1. Federal Office of Statistics, Annual Abstract of Statistics, Lagos, Nigeria.  
2. Ministry of Petroleum Resources, Lagos, Nigeria, 1977, Official Records.

Table 2.8. Federal Government Budget Estimates: Current Revenue (N million).

Source	1975/76	1976/77	1977/78	Percentage Change Between	
	(1)	(2)	(3)	(1) & (2)	(2) & (3)
Tax revenue	3,865.3	4,014.3	5,576.8	+ 3.8	+ 38.9
Import duties	314.2	481.7	837.3	+ 53.3	+ 73.8
Export duties	1.3	0.6	7.6	- 46.1	+ 1,166.6
Excise duties	125.6	66.5	163.9	- 52.9	+ 146.4
Personal income tax	0.1	1.6	0.5	+ 1,500.0	- 31.2
Company income tax <sup>a</sup>	129.3	159.9	271.8	+ 113.6	+ 69.9
Petroleum profit tax	3,292.2	3,300.0	4,286.2	+ .2	+ 29.9
Other tax revenue <sup>b</sup>	0.8	4.0	9.5	+ 400.0	+ 137.5
Mining (royalties, rents, etc.)	1,281.0	1,538.6	1,772.8	+ 20.1	+ 15.2
Interest and repayments	84.4	175.2	260.7	+ 107.5	+ 48.8
Miscellaneous	17.1	28.1	42.2	+ 64.3	+ 50.2
Licenses and fees	4.9	5.9	4.5	+ 20.4	- 76.2
Earning and sales	11.6	11.9	12.2	+ 2.5	+ 2.5
Rent on government properties	0.6	1.0	1.7	+ 66.6	+ 70.0
Reimbursement	5.7	5.6	5.1	- 98.2	- 91.0
Others	0.6	3.7	18.7	+ 516.6	+ 405.4
Total	5,257.3	5,756.2	7,652.5	+ 9.5	+ 32.9
Less appropriations to the states	1,378.6	1,427.0	2,390.5	+ 3.5	+ 67.5
Retained by federal government	3,873.7	4,329.2	5,262.0	+ 11.7	+ 21.5

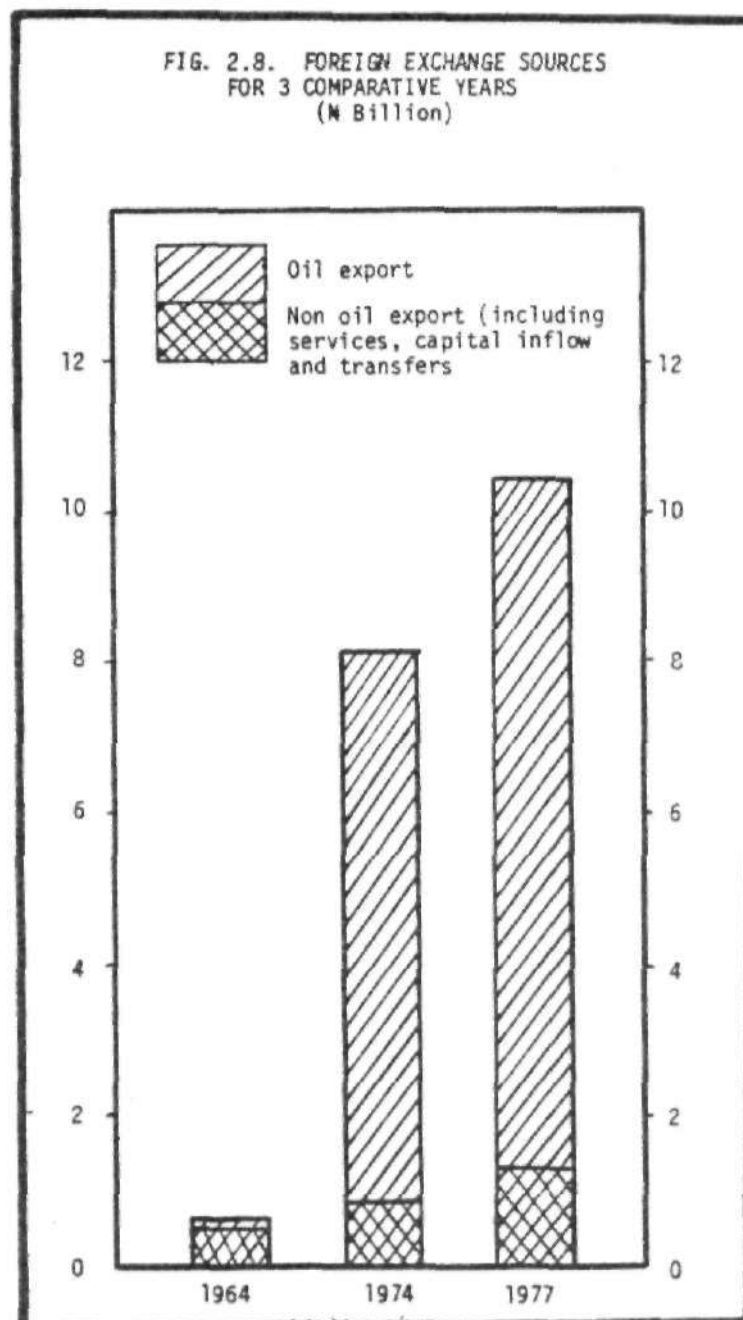
<sup>a</sup>Include super tax and surcharge on pioneer companies.

<sup>b</sup>Include capital gains, casino, stamp duties and penalties.

Sources: 1. Approved estimates of the Federal Republic of Nigeria, 1974/75-1976/77.

2. Central Bank of Nigeria, Lagos. Developments in the Nigerian economy, first half of 1977. Research Department.

FIG. 2.8. FOREIGN EXCHANGE SOURCES  
FOR 3 COMPARATIVE YEARS  
(N Billion)



Source: 1. Federal Republic of Nigeria-3rd National Development Plan, 1975-80.  
2. Central Bank of Nigeria-Yearly Report 1966.

constraint, which has for long limited growth in the economy, by helping maintain exchange rate stability and by expanding the country's capacity to import in step with (sometimes ahead of) the expanding demand for imports. Since 1955, the country's balance of payments has persistently been adverse until 1966 (when petroleum made the first major impact on the economy), reaching a cumulative deficit on current accounts of ₦242 million (US \$388 m) by the end of 1966. To finance this deficit government had to rely on foreign investments, receipt of foreign aid, external borrowing and the reduction of Nigeria's accumulated foreign exchange reserves. If these balance of payments difficulties impose a cost and hindered growth, it follows then that freedom from such constraints, because of oil revenues, confers a benefit.

The salutary effect of oil revenues on the Nigerian balance of payments during part of the post-civil war reconstruction is summarized in Appendix 3. According to a Central Bank of Nigeria's report, there was an unprecedented balance of payments surplus in 1974 of ₦3,100 million, which was ₦2,900 million higher than the 1973 level. This improved performance of the external sector, in spite of the heavy importation of reconstruction equipment, was due to the oil sector which made a net contribution of about ₦5,200 million to the balance of payments -- ₦3,800 million higher than in 1973. In contrast, the deficit of the non-oil sector widened from ₦1,200 million in 1973 to ₦2,100 million in 1974.<sup>19</sup>

However, despite the billions of dollars still earned from oil sales (which reached about US \$9 billion for the year 1978 mainly as a result of increase in prices) Nigerians are spending money abroad and for domestic development faster than they are earning it and once

Table 2.9. Per Cent of Financial Contribution of Individual Economic Sectors to the Gross Domestic Product.

	<u>Years 1974/75</u>
Agriculture, forestry and fishing	23.4
Mining and quarrying	45.5
Manufacturing and crafts	4.7
Electricity and water supply	0.4
Building and construction	5.7
Distribution	6.7
Transport and communication	2.3
General government	6.3
Education	2.6
Health	0.9
Other services	<u>1.5</u>
All sectors	100.0

Source: Federal Republic of Nigeris - Third National Development Plan 1975-80, p. 50.

more face the eventual possibility of balance of payments deficits. During the first half of 1977, a deficit of ₦266.8 million in the balance of payments was recorded by the Central Bank in contrast to a surplus of ₦152.3 million during the corresponding first half 1976.<sup>20</sup> This turn-around in the balance of payments position reflects the substantial growth in imports as well as the increased deficit in non-oil sector accounts. Both of these will be discussed in more detail in chapter four regarding their inflationary impacts.

So far we have clearly shown that the size and economic impacts of the Nigerian petroleum industry have been enormous, particularly its public revenue contributions. But, at the same time, it is important to bear in mind, as a prelude to the remainder of this work, that the per capita income -- assuming a population of 80 million Nigerians -- is still low even for African standards. Although the leap in petroleum prices alone has brought an increase of over ₦80 per inhabitant, at ₦300-400 the level is still lower than in some major West African countries such as the Ivory Coast. Examined in terms of socio-economic indicators, such as literacy, calorie consumption, infant mortality, income in rural areas or urban unemployment, the other countries' lead is even more apparent.

Most of the petroleum produced in Nigeria is exported in crude form. Only very little is exported to the neighboring Chad and Niger Republics in refined form because of the limited refining capacity. Table 2.10 displays the destination and volume of crude export. The market, which has traditionally been monopolized by Britain and Holland, has widened remarkably in recent years. The United States of America has now replaced both Western European countries as the leading customer. Another remarkable development is

the increasing shipments to other West African and Latin American countries which Nigeria is most suited to serve. These other markets might prove more useful in future should the industrial countries succeed in freeing their economy from dependence on OPEC oil. Meanwhile the large American share of the output plus the strange international practice of posting crude prices in the faltering dollar results in considerable losses in real terms which destabilizes government revenue remarkably.

### Structural and Institutional Aspects of Petroleum Production in Nigeria

The next set of issues which this chapter proposes to develop as a general scheme for examining the gains to local communities from the petroleum industry concern the ownership, management and operations of the industry from the point of view of local participation.

The oil industry in Nigeria is virtually monopolized by three of the seven most powerful international majors (the so-called Seven Sisters). The three are Shell-BP (Dutch/British) Gulf and Mobil (American). They are joined by other foreign independent and state-owned companies. All the foreign concessionaires active in Nigeria in 1977 are indicated in Figure 2.2 along with their various concessions. The newer entrants are mainly from the USA, Italy, West Germany, Japan, France and Nigeria. Although the newcomers have persistently increased their share of total production, Figure 2.9 indicates that Shell-BP alone still dominates production and export because of the nature and advantages of its original concessions.

During much of the early period, the Nigerian government's role was mainly regulatory, though only in theory. By the Decree

Table 2.10. Crude Oil Exports, December 1976.

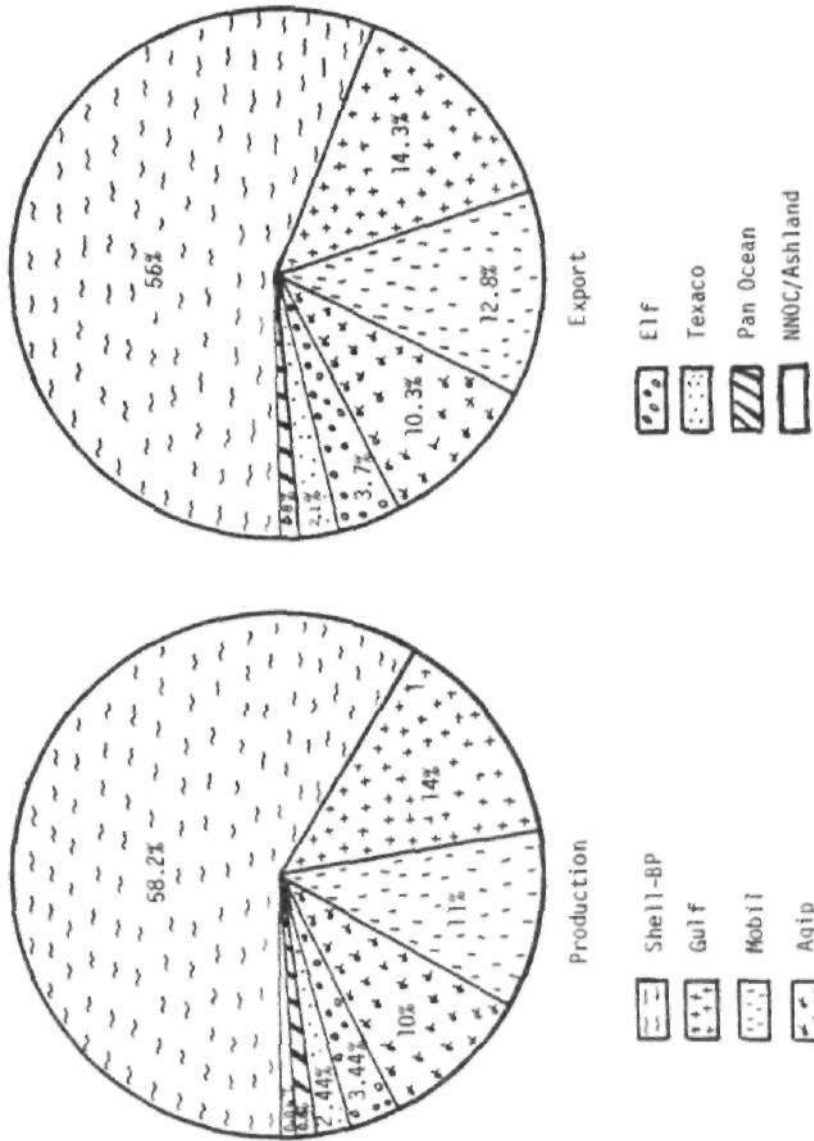
<u>Destination</u>	<u>Quantity Exported (net)</u>		<u>Per Cent of Total Export</u>
	<u>Barrels</u>	<u>Metric Tons</u>	
Belgium	315,151	45,100	0.44
Brazil	657,939	94,154	0.92
France	7,479,252	1,070,318	10.44
Ghana	517,199	74,014	0.73
Holland	18,033,708	2,580,714	25.18
Italy	888,844	127,198	1.24
Ivory Coast	576,105	82,444	0.81
Senegal	380,318	54,425	0.53
Sierra Leone	122,190	17,486	0.17
Sweden	825,796	118,176	1.16
United Kingdom	4,257,649	609,291	5.94
United States of America	23,809,635	3,407,278	33.24
Uruguay	172,419	24,674	0.24
West Germany	4,052,129	579,880	5.60
West Indies	8,798,151	1,259,059	12.27
Zaire	<u>737,346</u>	<u>105,518</u>	<u>1.03</u>
Total	71,623,831	10,249,729	99.94

Source: Federal Republic of Nigeria - Ministry of Petroleum Resources. Monthly Petroleum Information, December 1976, p. 22.

No. 51 of 1969,<sup>21</sup> however, the government tried to establish its legal rights to control the industry, when it issued what has since become the basic national petroleum law. A Petroleum Department was created in 1970 in the Ministry of Mines and Power to exercise supervision over the activities of the foreign concessionaries. The Department was ineffective and accomplished nothing by way of regulation. Then the Nigerian National Oil Corporation (NNOC) was established in 1971 mainly to work out some participation arrangements with the foreign concerns. There was so much conflict of interests between the two bodies that in 1977 government issued Decree No. 33 to merge the NNOC and the Ministry of Petroleum Resources into a new national body called the Nigerian National Petroleum Corporation (NNPC). The NNPC then became the "sole trustee" on behalf of the Nigerian people of all unoccupied petroleum concessions. In addition it will work out appropriate participation arrangements in the other concessions and exercise the powers of regulation and supervision of operations.

Government policy on participation was first established through the provision of an "option to participate" in a concession agreement entered into with Agip in 1962. The first government participation arrangement effected, however, was with Safrap (now Elf) in 1971. In October of the same year, government's option to acquire 33-1/3 per cent of Agip's operations was exercised. All subsequent concessions granted to new companies provided for 51 per cent participation option by government. In keeping with OPEC decisions, government had acquired, by November, 1974, 55 per cent participation in all the then producing oil companies in Nigeria. The current trend in government participation is towards "production sharing and work contracts" such as was entered into with Ashland Oil in 1974.<sup>22</sup>

FIG. 2.9. OIL PRODUCTION AND EXPORT SUMMARY  
December 1976.



Source: National Petroleum Corporation - Monthly Petroleum Information.


But as events, which are the subject of Chapter Five in this work, would show, government participation in the petroleum industry has not meant much other than staking more claims on the industry's profits and revenues. The foreign oil companies, who are supposed to be junior partners in the business, still own the capital investments and the technology. At the same time, they still control and manipulate access to the various horizontal and vertical integrations of the international petroleum industry with which all producing countries must contend in spite of the OPEC. However, since both industry and government share a common interest of ever higher profits from the oil operations at all costs, the question of ecological responsibility hardly arises.

The entry of oil investors in Nigeria and the development of the oil industry were predicated on a number of tenets of considerable interest from the local perspective. Subsurface wealth is regarded as public property and consequently its ownership and exploitation are vested in the state and distinct from ownership of the property directly above.<sup>23</sup> Also, and following from the above, the granting of concessions or licenses to any public or private enterprise to exploit such subsurface wealth is the prerogative of the federal (not state or regional) government -- so paramount is the national over private interests. Therefore all petroleum legislation and enforcement must be national in scope.<sup>24</sup> On the other hand, the payment of "a fair and adequate compensation" in cases of damage or violation of private or communal property is relegated to a kind of mutual negotiation between the parties concerned; there is no compelling obligations on the offender to make specific restitutions.<sup>25</sup>

To reach the final consumer, oil passes through four main stages: production, transportation, refining and marketing. All four are highly capital-intensive (through marketing less so than the others) and are characterized by a high rate of technological improvements, which simply means that this is not an economic process in which local people have much place.<sup>26</sup>

The production stage, which usually comprises exploration, development and production proper is extremely costly, risky and even unpredictable as far as returns to investments are concerned. We can recall that Shell-BP sank over US \$75 million in exploration alone, at prevailing costs then, before the first major strike was made in Nigeria in 1956. According to figures presented by Professor M. A. Adelman in 1966 -- Table 2.11 -- by far the largest proportion of economic cost of producing a barrel of oil consists of development expenditure. Of course, current capital and operating costs may run up to five times or more as high. For the industry as a whole, development is a continuing effort to replace oil taken out of the ground and to postpone the otherwise inevitable rise in unit costs of production. Thus in a given area, development, and even operations, will cease once prospects elsewhere have become more attractive.

What all these mean in the Nigerian situation is that the high cost of development and production in the first place invited foreign capital investment and a technological culture which were not locally available. Also such heavy and risky investments at the initial and subsequent periods can only be justifiably made, at least from the point of view of the investor, if the prospects for profits are substantial, fast and unrestricted by secondary costs such as clean up or restoration costs. This is why the industry is so highly mechanized



and subsists on so much of external material inputs to maximize shareholder's profits. There is no patience to wait to train and use extensive local labor and materials and it will be too expensive to be ecologically responsible. The threat of withdrawal of capital and skill to more promising locations outside of the country has lately come to strengthen industry's bargaining position in doing business their own way.

Table 2.11 also shows how production costs vary by area, depending on the richness and the location of the deposits and on a multitude of technical considerations that account for large variations even within a given area and over time. In Nigeria, production cost has risen immensely as a result of imported and domestic inflation. In addition, as nature would have it, many of the prolific pools have been concentrated in inhospitable and difficult terrains with almost inaccessible communication. Thus, after off-setting the cost of overcoming such physical obstacles, and meeting incessant government financial demands, the profit-conscious industry is no longer willing to invest in the rural development of the producing localities.

We have already indicated that most of the crude oil produced is exported. This means that, of the four stages in the oil industry, only crude production (with little local content) and some initial transportation by pipelines (also of little local significance) take place in the country, particularly in the locality of the oilfields. Like production, oil transportation is characterized by high capital costs and technological skills and requires specialized facilities like pipelines or tankers which have little value for other local purposes. These characteristics again do not favor local participation in much of the industry.

Table 2.11. Crude Oil Production Costs  
At Various Stages and Areas  
(cents per barrel)

<u>Areas and Years</u>	<u>Development</u>	<u>Operating</u>	<u>Total Costs</u>
United States - 1960-62	134	17	151
Lousiana	108	10	118
Texas	138	18	156
Venezuela - 1962-64	55	6.5	62
Africa			
Libya - 1963-64	13	2.2	15
Nigeria - 1964	28	2.7	31
Middle East - 1962-64			
Iran	6	1.0	7
Iraq	3	1.2	4
Kuwait	8	1.8	10
Saudi Arabia	8	1.5	10

Source: M. A. Adelman - Petroleum Press Service, May 1966, p. 178.

Refining and marketing of petroleum products employ relatively more labor than the other stages, but these activities are conducted away from the local populations, mainly at the consumption points in the industrial countries. In this case also, whatever potential for the employment of local labor or for generating the local economy is lost.

In summary we can say then that the capital and technological requirements of the oil industry which are locally absent have been a factor in establishing and maintaining external control over the Nigerian oil industry. Because of this, the industry's operations that are conducted locally provide very limited growth opportunity for the local economy. Though the Nigerian government, through a series of contractual arrangements and even equity participations, has at one time or another earned substantial revenues from oil development, it remains yet to be seen whether this is superior to the alternative of no development.

NOTES

<sup>1</sup>This discrepancy is sometimes so obvious that it is hardly denied. It has been frequently charged that government and its functionaries are either so corrupt or incompetent or both that the public may never know the precise volume of crude pumped out of the country by the foreign oil companies. To lend substance to this and bring it up to public notice, the Nigerian employees of a major international oil company, Gulf Oil, on August 22, 1977, strongly protested to the government that Gulf Oil was engaging in serious fraudulent practices in crude transportation and shipment from Nigeria. An investigating panel was of course appointed, but as usual, its report never saw the light of day. See for instance, *Business Times* (a Daily Times of Nigeria publication), Lagos, Tuesday 23, 1977, p. 1.

<sup>2</sup>See among others, L. H. Schatzl, *Petroleum in Nigeria*, OUP, Ibadan, 1968, p. 257; S. R. Pearson, *Petroleum and the Nigerian Economy*, Stanford University Press, Stanford, 1970, p. 235; A. Melamid, The Geography of the Nigerian Petroleum Industry, in *Economic Geography*, vol. 44, No. 1, January 1968, pp. 37 - 56 and Oil Developments in Nigeria, in *Africa Trade and Development*, London, 1 (1): pp. 8 - 10, July 1959; Rivers State of Nigeria, Office of the Governor, Information Unit, *"The Oil Rich Rivers State"*, Port Harcourt, 1967, p. 29.

<sup>3</sup>This section is based on Pearson, S. R., *Ibid*, p. 15.

<sup>4</sup>Shell-BP Petroleum Development Company of Nigeria Ltd., *Shell-BP*

in Nigeria, Lagos, January 1970, p. 5.

<sup>5</sup>Elf Nigeria Ltd., *Elf in Nigeria*, Lagos, 1976, p. 20.

<sup>6</sup>Pearson calculates that about 65 per cent of oil production in Nigeria by 1966 was from the former Eastern Region and that economic benefits which could derive from this induced that region to attempt secession from the Nigerian Federation. Further emphasising petroleum-related conflicts in the country, he tried to show how "legislation pertaining to the distribution of petroleum-related payments to the Nigerian governments resulted in a very significant transfer from the region of origin to the federal Government and to the non-producing regions". Whatever the merits of these positions, they serve, at least, to underline how much petroleum economy and politics have shaped modern Nigeria. For details see S. R. Pearson, "The Impacts of Petroleum Production on the Nigerian Economy", an unpublished Ph.D. Dissertation, Harvard University, Mass., 1968, pp. 1 - 4. See also L. H. Schatzl, "The Development of the Oil Industry in Nigeria with Social Reference to the Effects of the Civil War", in *Erdkunde* (Bonn), 24, 1, March 1970, pp. 59 - 70. Terisa Turner "Multinational Corporations and the Instability of the Nigerian State, *Review of African Political Economy*, No. 5, January - April 1976, pp. 63 - 79", shows how conflicts over oil policy were crucial to the overthrow of the Nigerian second Military Government led by General Yakubu Gowon.

<sup>7</sup>This asseration, however, requires two qualifications. First political conditions in Nigeria itself must be seen to be stable and conducive to continued development and reliance on her petroleum by the consuming countries. Secondly Nigeria must not price her crude out of the market by insisting on such prices that would have the effect of destroying her current competitive advantage based on crude

quality and transport costs. On the problem and tendency of overpricing, as well as the backlash of previous attempts, see *Petroleum Economist*, Nigeria - A Slower Rate of Progress, January 1976, pp. 12 - 13.

<sup>8</sup>Sources of data include (1) *Annual Report of the Petroleum Division of the Federal Ministry of Mines and Power*, 1956 - 1975, Lagos (2) Ministry of Petroleum Resources: *Monthly Petroleum Information*, 1976 - 1977 (3) Questionnaire interviews of Oil Companies production personnel (4) *Petroleum Press Service*, 1974 - 1976.

<sup>9</sup>The Nigerian National Oil Corporation: *A Review of the Petroleum Exploration Practices of the Operating Companies In Nigeria - Reservoir Engineering Report No. 1*, Lagos, December 1975, p. 39.

NOTE - This is a classified document.

<sup>10</sup>*Petroleum Economist* (vol. XLIV, No. 12, December 1977, p. 504) specifically illustrates the extreme example of this destructive pricing policy in the case of Nigeria's Bonny Light Crude. The market valued it at US \$14.00, but Lagos fixed the price at US \$14.63 per barrel which turned buyers away. The 10 per cent rebate later offered by the government was largely shrugged off by the lifters and a number of direct purchasers who were taking their business elsewhere.

<sup>11</sup>Deutsche Bank, *Nigeria*, Frankfurt (Main), 1975, p. 15.

<sup>12</sup>The problems of estimating and planning on the basis of the so-called proven reserves is examined by M. A. Adelman: *The World Oil Outlook*, in Marion Clawson (ed), *Natural Resources and International Development*, the Johns Hopkins Press, Baltimore, 1964, pp. 66 - 67. Also Eric W. Zimmermann (*Conservation in the Production of Petroleum: A Study in Industrial Control*, Yale University Press, New Haven, 1957, p. 40 and 121) develops the question further and includes

some technical and economic arguments concerning oil in the ground versus producible oil.

<sup>13</sup>Guy Arnold: *Modern Nigeria*, Longmans, London, 1977, p. 61.

<sup>14</sup>(1) American Petroleum Institute: *Basic Petroleum Data Book*, Section VI, Table 10, April 1978. (2) *Conference Board Records*, vol. XII, No. 5, May 1975, p. 168. (3) *Business Week*, January 13, 1975, p. 77.

<sup>15</sup>Royalties on offshore oil have now been slightly lowered less than 20 per cent and petroleum profits tax has been reduced from 85 to 65 per cent effective from April 1977. These reductions were forced on government in order to encourage further prospecting and development by the foreign operators who had started to switch operations elsewhere in protest over the erosion corporate profit margin by government deductions. See *Africa: An International Business, Economic and Political Magazine*, No. 73, September 1977, p. 85.

<sup>16</sup>*Nigeria Review: A Monthly Digest of Nigerian Affairs*, No. 6, 1977, p. 3.

<sup>17</sup>*Africa Today*, vol. 24, No. 4, October - December 1977, p. 6.

<sup>18</sup>For Nigeria, Pearson makes a critique of the usefulness of analysis based on the measurement of the GDP which he maintains exceeds the amount of GNP (Gross National Product) by the amount of net factor payments that leave the country to the foreign owners of capital. The exodus is often very large when foreign export industries, such as petroleum in Nigeria, are involved which distorts the true nature of the economy. See Pearson, S. R., *Ibid*, pp. 56 - 57.

<sup>19</sup>Central Bank of Nigeria: *Annual Report and Statement of Accounts for the Year Ended 31st December 1974*, p. 81.

<sup>20</sup>Central Bank of Nigeria, Lagos: *Developments In The Nigerian Economy During The First Half of 1977*, Research Dept., p. 55.

<sup>21</sup>Federal Republic of Nigeria: Supplement to official Gazette, No. 62, vol. 56, 27th November 1969.

<sup>22</sup>At first it was not clear whether the progressive stages of government participation in the industry would eventually lead to complete nationalization. During the 1974/75 heyday of the industry such a possibility was widely muted in private and semi-official circles, partly in reaction to what some thought was an act of betrayal or intransigence by a section of the industry during the course of the civil conflict. But the recent difficulties of the industry - contrived partly by the companies and partly emanating from international chain of events - would seem to have put to rest any such considerations.

<sup>23</sup>Federal Republic of Nigeria, *Ibid*, p. A257. Incidentally the same is true also of oil concessions in Venezuela and Indonesia. In a federal state like Nigeria, this is one of the arguments for the component members (the states) to look up to the center almost entirely for the resolution of all their development problems.

<sup>24</sup>Federal Republic of Nigeria, *Ibid*, pp. A258 - 261.

<sup>25</sup>*Ibid*, p. B352.

<sup>26</sup>Gross investment per worker in the U.S. oil industry in 1963, for instance, was US \$270 million in production, \$263 million in transportation, \$75 million in refining and \$14 million in marketing (based on data in American Petroleum Institute, 1965, *Petroleum Facts and Figures*, New York, 1965. Another tabulation shows that in 1960 oil refining and captive producing in the U.S. employed \$231 million of capital per worker compared to \$18 million for all manufacturing and \$40 million for the next most capital-intensive industry (see

National Industrial Conference Board, *The Economic Almanac 1964*, New York, p. 273. Issawi and Yeganeh (*Economics of the Middle East Oil*, Faber and Faber, London, 1962, pp. 50 - 51) give comparable figures for the Middle East Oil Development. However, these figures only point to a trend and a characteristic of the industry in our present context since inflation would have rendered them meaningless at current prices.

PART II

THE BENEFITS AND PROBLEMS OF  
OIL-THE CASE OF LOCAL COMMUNITIES

## CHAPTER III

## THE "GAINS" TO LOCAL ECONOMY AND COMMUNITIES

A foreign journalist who took a close look at the petroleum business in Nigeria in 1977 observed that

The results of the oil boom have been felt in varying degrees in all parts of the country. The greatest political problem arising from it remains that of fair distribution of walth, while the greatest political gain for the Federal Government is an effective economic weapon of control over the states... Meanwhile oil wealth is creating a national bourgeoisie, ensuring that inflation remains amongst the highest in the world, and bringing a new set of problems and social upheavals to the oil-producing areas of the country. Oil may have brought wealth to Nigeria as a whole; but it is one of the ironies of the story that the inshore areas where it has been discovered are very poor...; their villages have been deprived of their old occupations without the majority of the people finding anything new to do; and as yet few benefits from the oil boom have filtered through to them.<sup>1</sup>

Two things among others stand out clearly from this observation. The first is that the benefits, even costs, of the oil industry are most unevenly distributed. The second is that a wide range of new sets of problems and crises have been imposed on the Nigerian society generally, but more stringently on the communities that are the source, but not part of, the Eldorado. This second problem will be taken up in Chapter 4.

The questions which the present chapter seeks to answer relate to how effective government and industry programs have been in

spreading the benefits of the oil revenues. In other words, what public service and infrastructural investments have been made out of the huge petroleum receipts and what have been the impacts of these investments in overcoming problems of underdevelopment? Can it be said that the evolution of the whole range of petroleum's impacts is consistent with any of the opposing viewpoints outlined in the introductory chapter regarding the supposed benefits to local economies and peoples of foreign development of extractive natural resources? Have the phenomena of rural exploitation and neglect (in favor of urban interests) had a different interpretation and application in this period of the oil boom from the previous dark days of the agricultural economy? Thus uneven distribution of petroleum's benefits should be widened to include not only the concentration of wealth in very few hands at the expense of the masses, but also investment or lack of it in public works and welfare services that benefit a few rather than the majority and the cities rather than the rural areas.

#### The Nature of Expected Local Benefits

We pointed out in Chapter 2 that under the provisions of the Nigerian petroleum law of 1969, all petroleum rights and revenues belong, in the first instance, to the Federal Government sitting in Lagos—some 650 kilometers from Port Harcourt, the center of the oil industry. Neither the oil-rich state governments nor much less the local governments or communities have direct entitlement to the revenues, although the primary activities take place in rural places.

We saw also that the industry itself cannot bring much growth to local economies in its area of operation because of its intensive capital and technological requirements. Given these circumstances, how then can we measure and evaluate derivation of benefits from the oil industry, or lack of it, by local communities.

Since the bulk of the financial gains from oil is expropriated by the Federal Government which later makes subventions to the state governments for the purpose of general development, and since petroleum revenues now constitute more than 85 per cent of all government revenues, we will examine what effects or impacts public expenditure at both levels of government have had on local economy, infrastructure and social welfare. A lot has been written about the 'staggering developments' occurring in the areas where oil exploitation is taking place.<sup>2</sup> If these were true in case of the oil communities of the Rivers State, then it must be due to the pattern and effectiveness of the expenditure and investment programs of the federal and state governments as well as of the foreign oil companies since, as we pointed out before, the tasks of social and economic development in the country are the primary government responsibility with the private sector relatively uninvolved.

The nature of our evidence here must necessarily be both quantitative and qualitative. This results from the nature of data available. However, since sometimes quantitative evidence must reasonably be supported by qualitative observations or evaluations, we feel justified to employ both as one reflects and measures the other.

## The Impact of Oil Revenues on the Development of Agriculture and Fishery

In Chapter 1, we made the broad distinction between the upland agricultural and the riverine fishery economies of the Rivers State. Once the backbone of both the state and national economies, they are now the weakest points. Although the state generally cannot be said to be one of the topmost agricultural regions of the country because of the nature of its topography, yet agriculture is the dominant local industry here and is so strongly linked to the national agricultural performance in both export and domestic crop production that trends at one level reflects the situation in the other.

Figure 3.1 shows the index of agricultural export commodities for the nation as a whole rising from 92 (1960 = 100) to 127.8 in 1964 (the year petroleum started to figure prominently in the economy) and then declining steadily to only 68.8 in 1973. The same trend is repeated in Table 3.1 where we show agricultural export contribution to total exports declining from as high as 83.21 in 1960 to as low as 4.6 in 1975. This decline is due partly to the relative increase in the volume and value of oil, but more significantly to the absolute decline or stalemate in agricultural production. Equivalent figures do not exist to show that even more drastic deterioration occurred in food production. However, since Nigeria's agriculture was developed in response to colonial needs for export commodities, cash cropping for export assumed an international division of labor that trapped the country in a primary production role, to the detriment of domestic food crops. One would have

FIG. 3.1. INDEX OF OUTPUT OF AGRICULTURAL EXPORT COMMODITIES  
(Base: 1960=100)

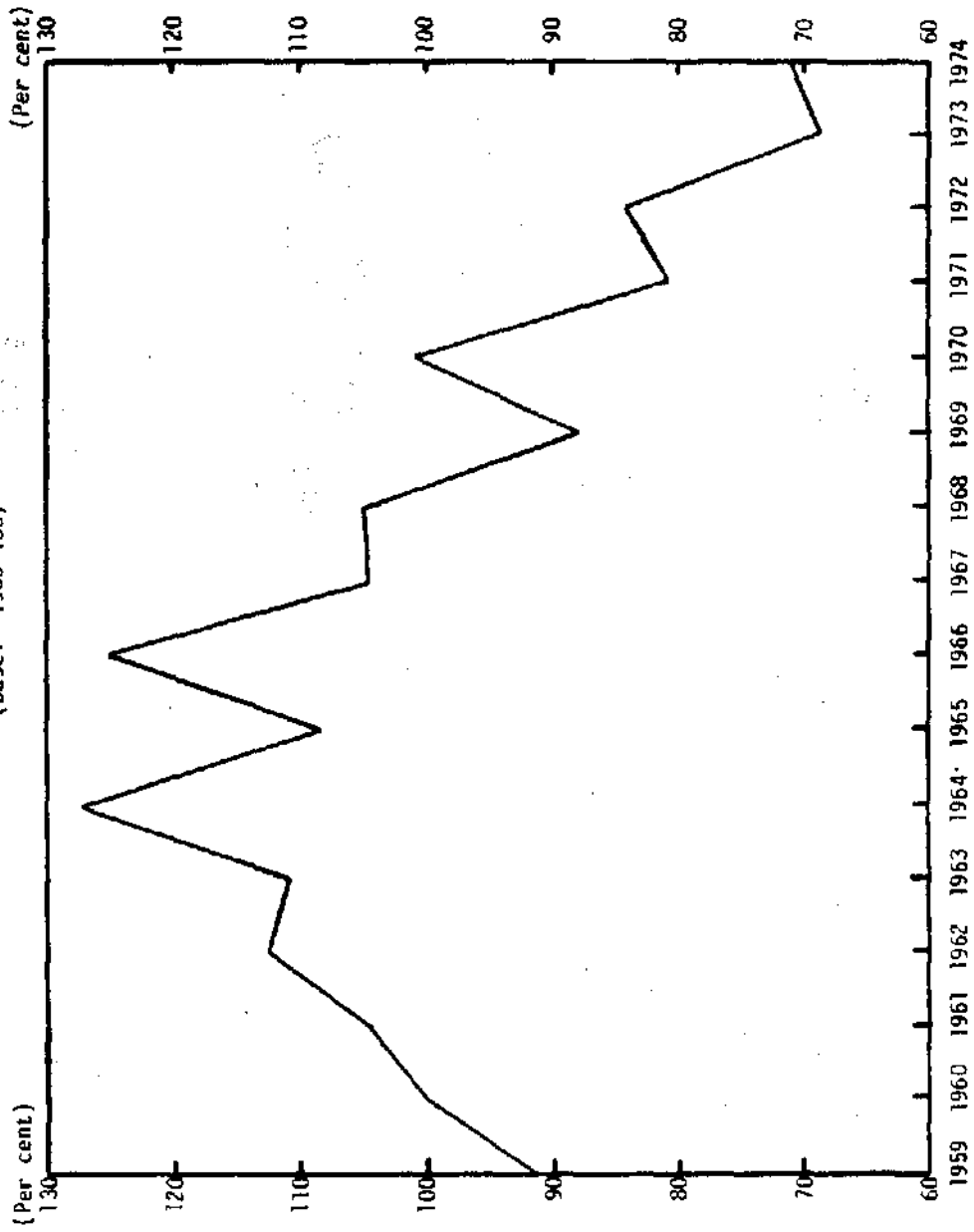


Table 3.1. Nigerian Agricultural Exports as Percentage of Total Exports, 1960-75

<u>Year</u>	<u>Total Exports (N m)</u>	<u>Agricultural Exports (N m)</u>	<u>Agricultural Exports as Percentage of Total Exports</u>
1960	339.4	282.4	83.21
1961	347.2	283.0	81.51
1962	337.0	260.0	77.15
1963	379.4	286.0	75.38
1964	429.4	304.0	70.80
1965	536.6	327.4	61.01
1966	568.2	292.6	51.50
1967	540.0	264.6	49.00
1968	467.0	269.7	57.75
1969	683.0	278.2	40.73
1970	885.0	286.8	32.38
1971	1,293.4	265.2	20.50
1972	1,411.5	187.7	13.29
1973	2,277.5	266.7	11.7
1974	5,794.8	272.7	4.7
1975	4,984.0	226.4	4.6

- Sources: 1. Dupe Olatunbosun: Nigeria's Neglected Rural Majority, 1975, p. 61.
2. Central Bank of Nigeria: Economic and Financial Review, Vol. 14, No. 1, March 1976, p. 67.

expected the large petroleum revenues that are now readily available to turn the situation around.

Paradoxically, it has become very clear today that Nigeria's most enviable asset, its petroleum wealth, is also a great liability. It has had a negative impact by drawing attention away from other sectors of the economy and has postponed urgently needed solutions to some of the country's underlying structural problems. Agriculture and fishing are some of these.

Out of the country's total land area of 98.3 million hectares, only about 34 million hectares, or roughly a third, constitutes land under cultivation in which a wide variety of tropical crops could be grown on account of the varied climatic conditions. The total cultivable land is, however, estimated at 71.2 million hectares.<sup>3</sup> Thus, less than one half of the potential agricultural land is at present utilized; even this is declining as agriculture become unattractive.

In the Rivers State, of the total land area of 1,794,084 hectares, only 31,196.80 hectares was under cultivation in 1976 while another 18,362 hectares was permanently occupied by tree crops for export produce.<sup>4</sup> Thus only 49,558.80 hectares, representing 2.7 per cent of the States total land surface was cultivated and 1,649,785.60 hectares or 97.3 per cent of the land area is still waiting to be developed for agriculture (including swamps and jungles). These figures reveal the enormous potentialities that exist in both the State and the nation for planned, profitable investment in the agricultural sector both for the purpose of achieving self sufficiency in food production and reducing over-dependence on unpredictable petroleum.

Agriculture and fishery in the State suffer from many problems which require heavy investments to overcome. Generally these concern low productivity, low gross production, limited preservation and processing of products. Specifically, there is still the problem of minimal use of revolutionary agricultural and fishing inputs like certified high-yielding seed, fertilizers and crop protecting chemicals. There is the serious problem of lack of agricultural credit or the misappropriation or abuse of the little that may be available. Emphasis is on cash crops to the detriment of food crops. The land tenure system, which we examined before, is a serious impediment to modern productive agriculture. Other equally serious problems include lack of price and other incentives to farmers, inadequate and inefficient extension services, lack of funds for agricultural research or research conducted largely in systems irrelevant to those prevailing in local practices, lack of infrastructural support and shortage of agricultural labor resulting from mass movement of people, particularly the young ones, from the land.

In many instances, fishing faces problems identical to agriculture—reliance on outmoded implements and practices, lack of incentives, and above all, the shrinking fishing grounds as oil pollution dangerously intensifies.

The need to modernize the states agriculture and fishery industries has often been stated as paramount in governments' annual expenditure or the five-year periodic planned development programs. And, in fairness to government, quite handsome allocations have occasionally been set aside for this purpose, but in a manner which reflects no genuine commitment to this philosophy, as well as

indicating complacency with the dominant role of petroleum in the economy; there have been seriously disturbing gaps between development projects on paper and actual accomplishments.

There is little cooperation in practice between the Rivers State Ministry of Agriculture, Fisheries and Natural Resources, on the one hand, and the Federal Ministry of Agriculture, on the other. This tends to blur the line of responsibility for the present poor state of agriculture and fishing—sometimes between the state and the federal governments, one tries to make the other the scapegoat. It can be argued, of course, that the role of the federal government in agriculture is far less extensive than that of the state partly because agriculture (including fishery and livestock farming) is really a state issue and the federal government essentially deals with the broader issue of assistance and programming. But the extent to which agriculture will receive attention in budgetary allocations of the 19 states in the country will depend in the final analysis on the financial back-up by the federal government.

The first National Development Plan (1962-68) was launched soon after independence to mark the beginning of a truly indigenous effort to achieve a balanced development of the Nigerian economy. Total planned fixed investment for the six years of the plan was to be N2,366 million but the events of 1966 cut short the program by two years.<sup>5</sup> But before then out of a total capital expenditure of N1,353 million only N183.80 million or 13.58 per cent was allocated to the improvement of agriculture and other primary production, which in no way reflected the emphasis placed on agricultural innovations in the preamble to the document.

It was projected that this level of investment would achieve an annual growth rate of 2 per cent in agricultural production even though the corresponding annual rate of demographic growth was 2.8 per cent. Furthermore, 34 per cent of the bulk of allocation to primary production went to government-directed projects such as farm settlements, plantations development, irrigation schemes, etc. all of which were geared for increased production of export crops. On government's own admission, there was an underexpenditure of 42.8 per cent of allocations for agricultural improvement during the period, which must have been diverted to finance other projects considered more worthwhile. These facts are important for us to appreciate that the problems of agriculture in this country, leading to the serious food shortages that plague today's population, have been building up over several years of neglect, only hastening to the present crisis proportions as a result of the impact of petroleum revenues.

During the Nigerian Civil War all of the Rivers State became a battle ground between the federal and secessionist forces. The agricultural and fishery foundations of the state were very severely damaged as both the fighting troops and hordes of civilian refugees in temporary camps ravaged anything in their way. Soon after the war, the Second National Development Plan, 1970-74, was launched in which there was a strong policy commitment by both the Rivers State and the federal governments to expedite the rehabilitation and improvement of agricultural productivity and quality, and to remove the drudgery of agricultural pursuits. Again, actual performance did not match this commitment. Total federal revenue allocation for all governments in the federation for agriculture, fishery and livestock development

was N68 million for the four year period when federal revenues totaled more than N12 billion reaching N5.2 million in 1974 alone.<sup>6</sup> This was only 0.6 per cent of total revenue and the Rivers State and other war affected areas were not to be treated differentially.

Table 3.2 shows a breakdown of federal capital allocation and assistance to all the states for the plan period. We can see that emphasis was again on the development of export and industrial crops, but there was, however, the beginning of programs to provide some agricultural credit, the lack of which has in the past been a major drawback to agricultural innovation. For the Rivers State in particular, this level of federal assistance translated to N6.3 million for the development of agriculture, fishery, livestock and forestry. For a state that was more than 90 per cent dependent on federal financing (Chapter 4), a previously depressed region that further suffered much destruction of these primary activities in the civil war, this assistance can hardly remove any of the constraints, even assuming that it was honestly and effectively applied to the targeted projects, which was not the case by any means.

If shortage of capital had been a problem and a legitimate excuse for not upgrading all aspects of the agricultural sector, not only in the Rivers State but elsewhere in the country, certainly such would not be the case after 1974 when, as we saw in Chapter 2, the petroleum industry and its revenues really boomed. This is clear from the Third National Development Plan, 1975-80, which, by its share size compared to the previous ones, reflected the upsurge in federal revenue and a thinking that capital alone could take care of development problems.

Table 3.2. Summary of Federal Capital Expenditure on Agriculture:  
1970-1974  
(N million)

	<u>1970- 1971</u>	<u>1971- 1972</u>	<u>1972- 1973</u>	<u>1973- 1974</u>	<u>Total</u>
Research on food crops	0.632	0.784	0.506	0.364	2.286
Research on export crops	0.658	1.778	1.298	0.642	4.376
Research on crops for local industries	0.076	0.056	0.070	0.060	0.262
Meteorological services	0.274	0.440	0.212	0.020	0.946
Agricultural credit	3.000	3.000	3.000	3.000	12.000
Agricultural grants to research councils and institutes	0.450	0.450	0.450	0.450	1.800
Federal assistance to agriculture	4.000	10.000	10.000	10.000	34.000
Special agricultural schemes	--	<u>2.000</u>	<u>2.000</u>	<u>2.000</u>	<u>6.000</u>
Total	<u>9.090</u>	<u>18.508</u>	<u>17.536</u>	<u>16.536</u>	<u>61.670</u>

Source: Second National Development Plan 1970-74, Federal Ministry  
of Information, Lagos, 1970, p. 115.

Out of the nominal total capital expenditure program of ₦32.9<sup>7</sup> billion and later expanded to ₦45 billion as the price of oil escalated and more money flowed in, estimated expenditure on agriculture, livestock and fishery was ₦2.201 billion over the five year period. This represents only 4.9 per cent of the intended capital expenditure compared to ₦3.326 billion or 10.1 per cent on defense.<sup>8</sup> Officials estimated that this level of expenditure will achieve annual growth rates of 4.8 per cent for agriculture, 10 per cent for fishery production and 3.9 percent for livestock production. But the huge amount of capital involved was not matched by a corresponding high level of planning and integrity in actual operation. Thus almost three and one half years after the program became operative, the expected growth rates are nowhere near realization. Agricultural production has actually been declining instead from what it was before the program was started. Food production is dangerously down (Chapter 4). The production and export of the traditional cash crops continues to drop as a proportion of total exports shown in Table 3.1. Nearly all of the basic underlying problems of this sector remain unsolved, although some real effort (even if unfruitful) has been made in the area of agricultural credits.

In the Rivers State, as in any other state in Nigeria, federal assistance for agricultural development is supplemented with the state's own programs. But the point has already been made that, given the extreme dependence on federal subventions by the states, their agricultural programs depend eventually on the federal government's financial backing. Thus within federal assistance programs under the Third National Development Plan, the Rivers State would

spend altogether the sum of ₦61.388 million over five years for the development of the agricultural sector—including livestock, forestry and fishery.<sup>9</sup> In the 1977/78 financial year the State's capital allocation for this sector was ₦11.878 million, but of this amount ₦6.224 million or 52.4 per cent went to recurrent expenditures in the Ministry of Agriculture, Fisheries and Natural Resources—mainly for the payment of salaries and allowances as well as inflated administration costs.<sup>10</sup> This leaves only ₦5.654 million for structural innovations and to subsidize various inputs, such as fertilizer, improved seeds, insecticides and farm machinery, that are urgently needed. Little wonder that there has been so much discrepancy between budgetary allocations as encountered in official records and project accomplishments as revealed by field evidence.

It must have been suspected to this point that our assessment of the benefits of the petroleum sector to the local producing communities, via its contribution to the traditional agricultural sector, will be based on a consideration of the level of government financial allocations rather than on an evaluation of specific accomplished projects. While in the big agricultural states like Kano, Sokoto or Ondo, some progressive agricultural schemes have recently been completed, particularly in the area of irrigation, the same is not true of the Rivers State. Here planned public agricultural or fishery projects are not lacking, both in range and diversity, but these are only temporary palliatives to one problem in isolation of other related ones. Consequently, failure rate is high and one unsuccessful project tells the story of the others.

For instance, up to the 1977 financial year government was only able to cultivate 4,000 hectares of arable land in the state as experimental farms for the purpose of containing acute food shortages, but this effort was not directed to stimulating or coordinating individual farmers' effort. The Ministry of Agriculture distributed 30,000 palm seeds and 60,000 cocoa seeds to farmers to stimulate the production of these crops for export but it did not do the same for any of the crops for domestic consumption even when the state survived essentially on food import from other states. Six fish ponds were developed in the state and about twenty mechanized fishing units were provided but again only on unproductive experimental basis with no impact whatsoever on local private fishing. The sum of N1.5 million was set aside for the construction of three new fish smoking kilns in Brass and Degema local authority areas, but the project has gone bankrupt with construction only half finished. A sum of N353,754 was made available under a special credit scheme to 63 farmers but as much as 68 per cent of this went to only 2 of those farmers. Thus concludes the record of 'achievement' for this period, in which over N11 million was appropriated.

A clear testimony to the failure to link the outmoded and unrewarding agricultural sector to the booming petroleum sector is found in the unfortunate Peremabiri large-scale rice production scheme. According to the United Nations Food and Agricultural Organization (FAO) experts who did the feasibility study, this scheme, if fully developed, can produce enough rice to feed the whole of West Africa. There are optimal ecological and agronomical conditions for a project of its scale and nature (cf. Chapter 1). Situated at the heart

of the oil producing region, the project, at 1975/76 prices, would have cost an estimated ₦7,000,000<sup>11</sup> over a five-year period (1975-80), which the Nigerian Government and the Rivers State Government were well able to provide internally from petroleum revenues. But by 1977, the program, which was envisaged to have attained a cultivation level up to 1,200 hectares, has witnessed a development of only 20 hectares after having officially absorbed ₦3,000,000.

Recent indications are that the scheme will eventually be abandoned. Reasons for the failure of this scheme include bad management, shortage of trained manpower and above all, lack of commitment and cooperation between federal and state agencies. As foreign exchange became readily available from the oil sector which led to an import spree (Chapter 4), high quality rice was effortlessly imported from the United States of America. This has been identified as responsible for not only the demise of the Peremabiri Scheme but also for driving local farmers working very small holdings out of jobs.

The existence, side by side, of the backward and dilapidating agricultural sector with the modern and booming petroleum sector focuses the contrast between them more sharply and makes their lack of linkage the more unfortunate. Prompted by increasing public sensitivity to this lack of linkage, the state government acknowledged that:

Capital investment in agriculture has been low. If capital formation in agriculture consists of land improvement in this state, it could be claimed that the known improvement does not go beyond the manual hoes and knives except a few acres of Plantation of Palm Trees and Rubber.... The entire agricultural system as at present constituted is uncoordinated in any functional sense and it suffers from a dearth of trained manpower as well as the right institutional set up to operate the essential services.<sup>12</sup>

This situation in the Rivers State is simply a representation of the poor state of agriculture generally in the country, hence it has been plagued during the past three years or so with severe food shortages that have had to be partly relieved by massive air lifts and duty-free importation (thanks to enhanced foreign exchange earnings from petroleum). Suddenly the government discovered that food supply had run out, and could not be replenished from domestic stocks. In response, a number of frantic measures were announced, in addition to large-scale importation, to meet the emergency. Again the failure of these stampede programs to achieve any measurable success, while indicating the haphazard nature of government financial and ideological commitment to the improvement of this sector, also illustrates how the oil-boom mentality has turned the entire population from the pursuit of agriculture and other relatively unrewarding traditional occupations.

In 1976, on the advice of a committee of experts who reported that by 1980 the amount of total food shortfall would reach 16 million metric tons if the present tempo of food production was not radically accelerated, the federal government set up what was called the 'Operation Feed the Nation (OFN) campaign with high powered national and state offices, budgetary appropriations and a team of 'experts' and civil servants.<sup>13</sup> The main objective was to mobilize the nation, from the highest echelon to the grassroots, to achieve self sufficiency and reliance in food production. But this noble objective was never to be realized because, as is often the case, money was just thrown on dishonest public officials without any pre-planning or provision for accountability. Although the initial

starting capital of ₦6,000,000 was augmented many times over for the purpose of land improvement, credit grants, fertilizer and improved seed subsidies, etc, it soon became public that the money has been misused—going for expensive Mercedes Benz and Range Rover autos, real estate investments and mansions, grandiose weddings, second burial and other ceremonial parties, as well as for pleasurable overseas shopping and banking. 293 out of the 300 farmers' interviewed in Omoku, Elele, Bori and other rural areas of the Rivers State, or 97.7 per cent, have never received any form of material help or advice from the program. The less than 2.3 who had, traveled all the way to Port Harcourt city (average of 78 kilometers) where the OFN office and officials could be reached. Thus the great idea of agricultural renaissance was lost to the peasants who now regard OFN as 'Operation Fool the Nation,' in spite of the initial outburst of enthusiasm that greeted its inauguration.

Apart from the OFN, various other uncoordinated and unsupervised attempts have been made to rescue the decaying rural-based agricultural sector. One such effort was the establishment of special credit schemes specifically to advance loans to farmers, but like other rural development projects, these are frustrated by human and technical problems. In the Rivers State, large amounts of credit were actually dispensed from this scheme (though accurate records do not exist), but often to the wrong people—contractors, traders and other business people who hold influence with the administrators of the loan scheme. These people are "occasional farmers," owning a few hectares of agricultural land in the rural villages, while living and doing their real business in the big cities. Backed by the few

hectares which are only occasionally under cultivation, they have been able to manipulate the operations of the loan scheme and have thus diverted the available funds to projects other than agricultural improvement. The loan administration itself is characterized by excessive operational costs since it operates within a highly bureaucratic setting which means that most of its funds are wasted on redundant expenses.

The first attempt to make agricultural credit available was contained in a federal government directive soon after the civil war to the commercial banks to set aside 6 per cent of their lending capital for lending to farmers. It was simply ignored and not enforced. Then in the Second National Development Plan, 1962-68, government provided ₦6,000,000 for the establishment of Nigeria's first Agricultural Credit Bank.<sup>14</sup> It was crippled by regional political pressures. In the Third National Development Plan, 1975-80, government on the advice of the World Bank finally established the current National Agricultural Bank (NAB) with an estimated capital of ₦150 million over the five-year period to reflect the petroleum sector's contribution to the economy's weakest point.

At the end of 1977, the NAB, together with the Rivers State Ministry of Agriculture, Fisheries and Natural Resources, approved loans totaling ₦101,600 to only 20 communities in the state, but in fact, only 15 of these did receive the approved loans, to the tune of ₦84,000.<sup>15</sup> These were awarded mainly to cooperative farming societies and essentially under the tree planting credit program—i.e. for cash crop production. Individual farmers and fisherman who operate small units are required to join these cooperative organizations

before they can benefit from the loan scheme. But they are not easily persuaded because the so-called Cooperative Unions are again dominated by city-based tycoons with powerful influence in the right quarters and intentions to use the Cooperative Unions as another instrument to secure big credits for their private businesses.

The conditions for borrowing and the loan terms required by the NAB are practically impossible from the point of view of peasant farmers and fishermen, while at the same time pitting them against competition from very powerful rivals. The bank recognizes the following classes of loan beneficiaries: Individual farmers and fishermen, cooperatives, partnerships and limited liability companies, government-owned companies, state agricultural organizations, state financial institutions and other government bodies. But it is not specified that individual peasants should be given preferential consideration since they cannot compete on equal terms with the others. Instead substantial collateral is rigidly required for loans to be made, such as real estate, life insurance policies, legal mortgages, government securities, and stocks and bonds of reputable companies.

This list clearly indicates that there is no way that the illiterate villagers, for whom these things do not exist and have no meaning, are ever going to benefit from the scheme. Yet the success or failure, in fact the very essence, of the proposed agricultural revolution in the state lies in their hands now as it has been in the past. Consequently, NAB loans have also inevitably gone to non-farmers for purposes other than agricultural improvement. Such powerful recipients invariably are not pressured to redeem their loans. With bad debts piling up indefinitely, the goals and

objectives of the NAB as 'the farmers' bank' have further been undermined.

It has been suggested by Pearson and others that, if nothing else, 'it would seem to make sense to utilize some of the budgetary flexibility afforded by quickly increasing oil-derived government revenues to reduce the tax burden on the agricultural sector.'<sup>16</sup> This has not been done, which is not surprising since, in the past, agricultural policy in Nigeria has generally been used negatively, resulting in some 20 to 60 per cent decline in real income of the rural peoples relative to their urban counterparts.<sup>17</sup> This was achieved mainly through the instrument of the monopolistic Commodity Marketing Boards which had regulated the major agricultural exports of Nigeria since 1939.

The Nigerian marketing boards grew out of attempts by the British Government during World War II to tie the colonial economies more closely to the metropole. The entire nation was mobilized for the production of export crops at the expense of crops for domestic consumption. Then the boards were vested with sole authority to purchase commodities from the farmers at monopoly prices and to sell these at the best bargain prices at the European markets. The stated objective was to stabilize producer prices against the fluctuations of world commodity markets. Instead the boards (one for each of the major export commodities) ran very high surplus by keeping producer prices deliberately low to make large surpluses possible which were channeled to the federal and regional governments for loans and equity participation in manufacturing enterprises, construction firms, and, in some notorious cases, private banks

Table 3.3. Nigeria Cocoa Marketing Board Structure of F.O.B. Cocoa Bean Price for the Period 1957-71 in Nigeria.  
(N)

	1957- 1958	1958- 1959	1959- 1960	1960- 1961	1961- 1962	1962- 1963	1963- 1964	1964- 1965	1965- 1966	1966- 1967	1967- 1968	1968- 1969	1969- 1970	1970- 1971
Producer price per ton	292.0	292.0	312.0	264.0	192.0	202.0	212.0	232.0	122.0	172.0	182.0	192.0	292.0	302.0
Buying allowance	31.0	27.0	26.2	24.4	25.4	22.0	20.2	19.6	19.4	19.4	23.2	23.4	25.0	23.8
Export duty and producer sales tax	121.6	111.8	83.0	52.4	41.8	42.6	60.2	37.0	33.2	68.0	71.6	96.6	106.0	112.0
Shipping and hand- ling charges less refunds	4.2	3.4	3.8	4.4	3.6	3.4	3.6	4.4	4.2	4.4	4.0	3.6	9.6	9.8
Other costs	0.6	19.4	3.6	6.2	15.8	1.0	6.2	2.2	32.8	12.6	25.8	40.8	21.0	20.0
Profit/Loss	+132.6	+108.4	+9.4	-3.4	+31.4	+43.0	+57.8	-35.2	+26.4	+108.6	+103.4	+153.6	+96.4	+106.4
F.O.B. price per ton	582.0	562.0	438.0	348.0	310.0	314.0	360.0	260.0	238.0	384.0	410.0	510.0	550.0	574.0
Contributions to government revenue*	254.2	220.2	92.4	49.0	73.2	85.6	118.0	1.8	59.6	176.6	175.0	250.2	202.4	218.5

\* Contributions to government revenue are made up of export duty, produce sales tax and profit.

Source: Olatunbosun, D., Nigeria's Neglected Rural Majority, 1975, p. 89.

associated with regional political leaders. Table 3.3 illustrates how one such board—the Nigerian Cocoa Marketing Board—has been milking the poor rural farmer. In 1958, for instance, total government take from the realized F.O.B. price per ton was 43.7 per cent which represented the exact proportion by which the farmer was underpaid. A decade later in 1968 this proportion has climbed to nearly 50 per cent (49.2) and has not relented much since then in spite of the current predominant role of petroleum in the economy. This is because marketing board operations have been entirely regionalized and are now the second largest source of income to the regional or state governments after federal subventions.

By reducing or eliminating agricultural export taxes and removing marketing board profits, the government could once more stimulate the agricultural sector and thus improve rural income and productivity which may possibly slow down the rate of rural-to-urban migration. So far all attempts to reform the boards' operations have concerned merely organizational issues and have not earnestly tackled the vital question of relieving rural farmers of all government tax obligations.<sup>18</sup>

To conclude this section we emphasize that the traditional fishery and agricultural occupations of the oil-rich Rivers State still remain backward and unproductive because of the lack of integration or linkage to the fast growing modern petroleum sector. In the aftermath of Nigeria's oil boom the entire agricultural system has been relegated to a position of little consequence in the scheme of economic development and consequently some alienation has permeated the system. It is no longer attractive, particularly

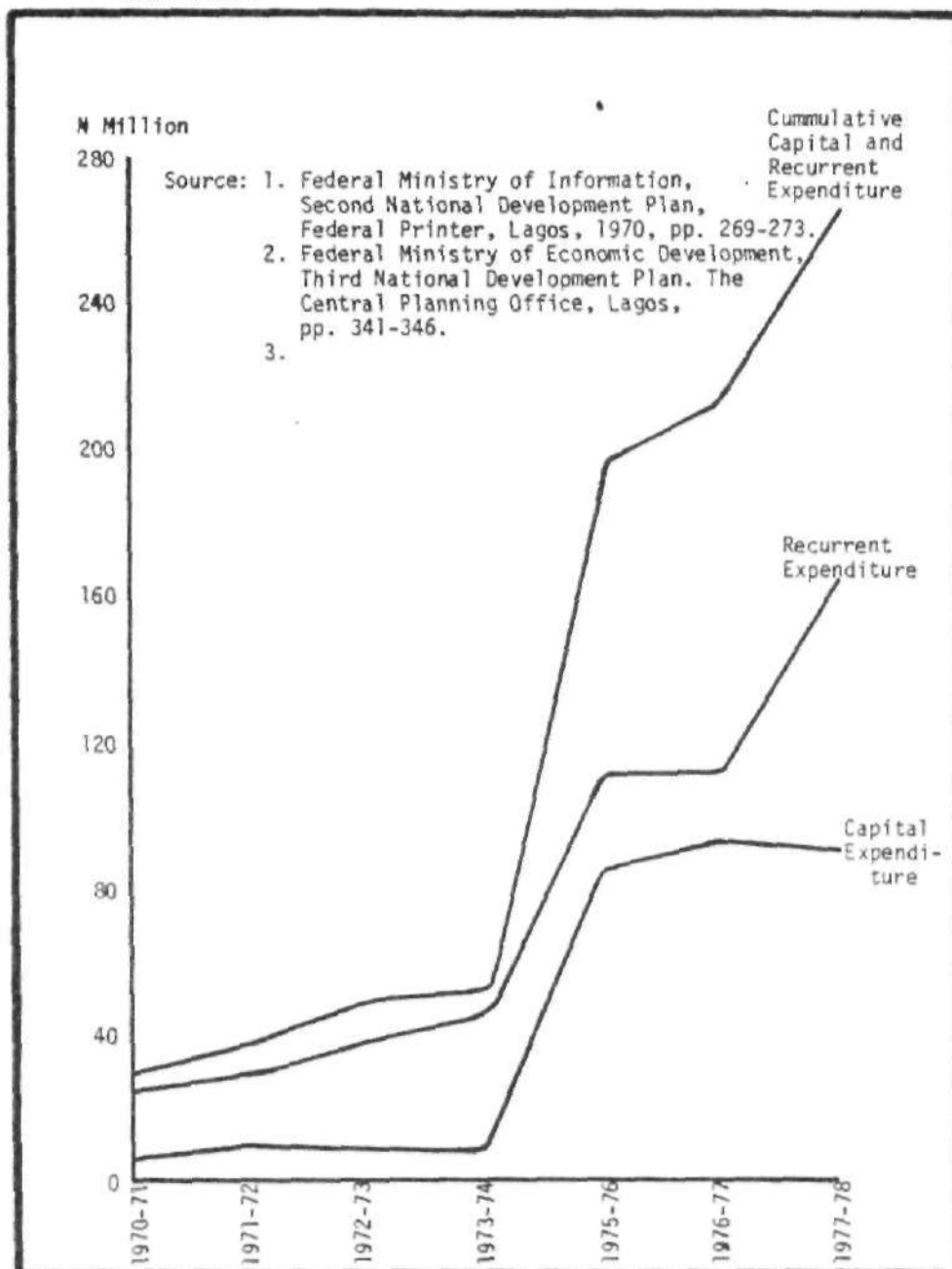
for the youth, to stay on the land and so we have lost the ability to feed ourselves in spite of abundant opportunities.

#### Petroleum Gains and Infrastructural Development

The lack of an adequate system of infrastructural development in any rural economy has an effect that both stifles the process of social and economic development and accelerates rural depopulation and decay. If a substantial increase in public revenues (as occurred with petroleum earnings) permits the construction of a good network of communication systems or the establishment of small-scale rural industrial projects and public welfare services, then such previously isolated and backward sectors would be integrated and function as part of the larger national economy. Their societies and communities would wax or wane along with the rest of the country in which case the present dangerous disparity between the city and the countryside; between the metropolis and the enclave would hardly exist or be substantially minimized.

For the Rivers State, public revenues have increased substantially (thanks to the oil boom) to permit planned and deliberate improvements of the previously inadequate and sub-standard infrastructure and social services of the communities. Figure 3.2 shows how sharply the state government's recurrent and capital expenditures have increased since 1970, but more spectacularly since 1974, in response to substantial increases in state revenues. The figure also shows that recurrent expenditures (which consist essentially of salary payments and other unproductive administration costs) have

FIG. 3.2. GROWTH OF STATE GOVERNMENT'S EXPENDITURE WITH INCREASED SHARE OF OIL INCOME.



persistently claimed more than 65 per cent of total expenditures, which means that very little is available to carry out very costly public works and constructions. Thus as Arnold pointed out in our opening citation, and was supported by field evidence, few benefits from the oil boom have yet filtered through to the poor villages most of whom have been deprived of their old occupations without much compensation. Without doubt, one of the important tasks now facing the government is to attempt to correct the yawning disparity between available revenue and the provision of public works and services.

### Communications

The two most important means of communication in the Rivers State, as we pointed out in Chapter 1, are overland and inland water transportations. Transport networks and facilities were in a critical position at the end of the civil war, owing to previous low investment, inadequate maintenance and war damage. Since the end of the civil war road development projects have tried to achieve only two results so far. The first was an initial effort to rehabilitate existing roads which were physically ruined during the war. In effect this simply meant rebuilding the primate city of Port Harcourt since, in terms of surfaced road density, its streets constitute over 90 per cent of pre-war construction. Secondly, attempts have been made to link the Rivers State with the neighboring Bendel, Cross River and Imo States by a number of interstate highway systems, but these often pass through relatively uninhabited and unproductive regions in order to shorten the distances

and keep costs down. However, in either case, the effects of current road development in reality have been to greatly enhance the economy and social attractiveness of the city of Port Harcourt at the expense of the vast but lethargic countryside.

In the riverine areas, the greatest need has always been for an improvement in the quality and regularity of safer and faster vessels for inland and coastal transportation. The traditional dug-out canoes have proved increasingly inconvenient and hazardous, especially during the peak of the rainy season when the level of the creeks rise so many feet above normal conditions.

The government of the state rightly recognizes the great and urgent necessity for an expanded capital investment in the transportation sector. In the 1970-75 development period it planned a total capital expenditure of ₦14,980,000 on the improvement of transportation networks and facilities, but actual expenditure for the period reached ₦45,141,592 as its share of the petroleum revenues increased dramatically.<sup>19</sup> Also in the 1975-80 development plan period estimated capital investment in this sector was ₦51,650,000 distributed as shown in Table 3.5.

The federal government has responsibility for the construction and maintenance of the major trunk highways such as those linking the states to the rest of the country. The state governments would then devote their own resources to the improvement of the secondary feeder roads. Even then, under the Third National Development Plan the federal government took over the responsibility for 16,000 kilometers of these secondary roads from the states in an effort to open up the vast hinterland of the country and stimulate economic

activity.

But in spite of the combined federal and state efforts, land transportation in the Rivers State (as elsewhere in Nigeria) remains woefully inadequate and obsolete. After so many years of planning and investment, only the main streets of Port Harcourt have either been partly mended or entirely reconstructed. The East-West Road (Opuoko-Ahoada-Patani), a distance of 170 kilometers, has been completed at an inflated cost of N61 million to link the Rivers State to Bendel and Cross River States. Other completed road projects include the 66 kilometer Port Harcourt-Elele-Ahoada Road; the Ahoada-Omoku-Okwuzi Road; the Ahoada-Abua-Degema-Buguma Road; the 69 kilometer Yenegwe-Oloibiri-Nemke Road and 35 kilometer Chara-Bori-Kono Road. By 1977, total road projects, both completed and under construction totaled only 433.7 kilometers (excluding street projects in Port Harcourt municipality) or less than 2 per cent of overall road density in the state. The rest must remain unbeaten tracks of only slight seasonal significance.<sup>20</sup>

Road construction is actually so substandard that most of the completed roads do not last any useful length of time and have frequently ended up as virtual death-traps in which many lives have been lost and several thousands of naira worth of property destroyed. There is little or no maintenance of completed projects so that once deterioration starts it soon claims the entire project. Although the oil boom economy has given rise to a tremendous increase in the volume of traffic, economic activities and the carrying capacity of numerous commercial vehicles, yet very little planning has been done to accommodate these increases in both urban

and cross-country transportation. Thus such a sudden increase in the volume and weight of transport vehicles and the lack of adequate maintenance and improvement have inflicted enormous damages to the roads and bridges up and down the state.

Even in the city of Port Harcourt, in spite of many thoroughfares and access routes, lack of imaginative planning to cope with the regional role of the city has resulted in a most appalling and frustrating traffic jams (popularly called go-slows) only surpassed by those of Lagos and Ibadan. It is one of the ironies of the oil boom mentality that in some parts of the state temporary military bridges, put up by the federal troops after the retreating secessionist forces had blown the existing ones, are still the only means of carrying traffic across some rivers, even eight years after the war is over. Thus many current problems, such as, the poor distribution of essential commodities, particularly refined petroleum products from the refinery at Elesha Eleme near Port Harcourt to all parts of the country, are in part the result of depending upon a system of communications that was simply not designed to handle the economic expansion that is now taking place. We shall deal with these problems more in the next chapter with regard to the unparalleled inflation in the country.

In the area of river transportation, some investment have been made, but again these fall far short of meeting existing problems. During the 1975-80 plan period, the state's Transport Corporation was allocated the sum of ₦1 million for the sole purpose of developing a passenger ferry service to link Port Harcourt with other major towns and population centers in the riverine areas

of the state. The natural formation of the creeks and rivers is such that the distance between certain places in this part of the state are far too long. Shortening these by forming canals would result in a substantial saving of fuel, maintenance costs and time. One of such canals recently completed cut short the distance between Port Harcourt and Nembe by 30.8 kilometers and involved the removal of 973,210 cubic meters of dredged materials in widening and deepening of channels at various points. For its canalization and dredging programs the Transport Corporation was allocated another ₦3.5 million. But during field investigation in 1977, only six passenger ferry boats capable of carrying 200 passengers each have been committed to service and the canalization and dredging programs appeared to have run into financial problems as a result of which work in many projects was stalled. The problem is that the State's Transport Corporation has acquired a peculiar notoriety in corruption and nepotism which has severely limited its effectiveness.<sup>21</sup>

It does not help much to think of other forms of transport and communications for the peoples of the Rivers State. Port Harcourt is the south-eastern terminus of the national railway system, but the system is so old and creaking as to be regarded as a national joke; telephones are so few, even in the metropolitan Port Harcourt, and those so unreliable as to make it simpler to walk or travel in person than try to make an appointment or send a message by telephone; and air services from the only airport at Port Harcourt can be a nightmare to those determined to brave the odds. So as we approach the end of the much-vaunted Third National Development Plan, inspired by and based on continuous and expanding

petroleum incomes, the oil-rich Rivers State (as well as the country generally) remains woefully ill-served by almost every form of communications. These conditions are much worse and their effects more crippling in the rural places than in a few of the big cities that have been reconstructed as a window dressing for the benefit of visitors to the country.

#### Industrialization and Rural Development Programs

One of the direct consequences of the poor development of communication networks for the communities of the Rivers State is the lack of diversification and stimulation of the traditional rural economy and society. Compounding this problem is the overall impact of the petroleum industry which not only renders the pursuit of other rural-based primary (and even secondary) activities relatively unrewarding but has actually led to the physical destruction of some rural industries (see Chapter 5). One would have expected that, at least in compensation (if not for the sake of a balanced structural development) these would set in motion a process of investments in the rural non-farm activities such as small-scale manufacturers and other secondary processing or crafts, the combined impact of which would more likely be greater and more stable than the single stimulus from the direct exploitation of crude petroleum. Such a deliberate policy of rural development would go a long way in reducing the present discriminatory and lop-sided distribution of incomes, wealth and amenities in the country between city and countryside and help stave off the current stream of cityward

migrations. Unfortunately such a policy has never been faithfully pursued and implemented.

Rural industries and crafts which are at present being revived from the destructive impacts of petroleum, include textile weaving, burnt brick making, canoe and boat building, pottery and ceramics, cane, mat and basket weaving, gari production, iron smithing and the distilling of local gin. In various ways, which shall be investigated in Chapter 4, the petroleum bonanza has greatly contributed to the starving of these industry of previously abundant skilled and unskilled manpower, but more significantly it has promoted an unholy appetite for imported, mass-produced substitutes for the products of these industries. They are now being revived under self-help community projects.

In a statement of objectives under the Rivers State Development Program of the Third National Development Plan, it is one of government objectives to achieve a closer integration of the oil sector in the state economy by pursuing industrial and economic development strategies that would reduce the present level of industrial and population agglomerations in the Greater Port Harcourt conurbation.<sup>22</sup> This has not happened. Instead the State's industrial policy would seem to be to take advantage of the industrial momentum or inertia which Port Harcourt already possessed as the oil capital of Nigeria, the second largest sea port, and railway terminus and the location of all existing infrastructural and social services. Thus in 1977, the city alone had 96.25 per cent or 77 of the 80 major and minor industrial establishments in the state.<sup>23</sup> These are housed in newly developed industrial estates such as Trans-Amadi,

all within a radius of 8 kilometers of the main city.

Such an industrial development program is countervailing to efforts to disperse industries and population which would stimulate rural economy and life. But in the absence of a publicly supported pragmatic rural improvement scheme, many rural communities have taken to self-help industrial and social development programs based on compulsory levies on every adult male and female or sometimes on voluntary donations made toward specific projects by a few naira-peddling sons abroad who ha-e had better luck with the oil bonanza. Such self-help projects, in spite of their extreme financial stress on the people, are often praised by high government officials as a sign of maturity. But the fact is that they signify people's disappointment that government can no longer discharge its obligations to them even at a time of supposed public prosperity.

However, government still assists some rural development projects in partnership with local community organizations. Thus rural industrialization involves partial financial and technical assistance or advice toward the promotion of selected rural craft industries. But the scale of such operations is generally too small to make meaningful contributions to the problems of poverty and unemployment among the communities. Table 3.4 shows the distribution and size of such government assisted craft centers between 1972 and 1975. The centers offer elementary courses in carpentry, masonry, sewing and weaving. If we consider the fact that 80 per cent of over 2 million peoples of this state still live in these depressed rural places, then it becomes obvious that any meaningful assistance or improvement program must operate at a level and

Table 3.4. Community Craft Centers in the Rivers State - 1977.

Division	Location	Number of Trainees 1972-75
Okirika	Ogboloma	140
Tai/Elemé	Agbonchia	130
Ahoda	Ebocha	100
Khana	Wiiyakara	100
Yenegoa	Agudama	90
Obio	Rumigbo	80
Ogba/Egbema	Omoku	80
Oporoma	Ekowe	60
Etche	Okomoko	50
Ikwerre	Elele	50
Kalabari	Ifoko	40
Bonny	Bonny	(not open)
Ogbia	Ogbia	<u>(not open)</u>
		920

Source: Ministry of Rural Development and Social Welfare, Port Harcourt - unpublished documents.

efficiency much beyond what these centers can presently offer.

There exists a Small Scale Industries Credit Scheme Fund to which both the state and federal government, under the 1975-80 development program, allocated the sum of ₦3.2 million. The purpose of the Fund, as a revolving loan scheme, is to assist communities or individuals of local origin to establish or expand small-scale industries in the rural areas. Like the agricultural credit scheme, loans have simply been advanced to Port Harcourt based business people-indigenous capitalists-for purposes other than rural development.

The state has also encouraged and assisted the formation of production and consumer cooperatives as a way of improving rural economy. The total number of registered cooperatives stood at 320 by 1977, although membership in some can be as small as 20. The number of registered members was 12,571 and shares, savings and deposits stood at ₦402,530.<sup>24</sup> These cooperative unions organize various levels of production of some essential commodities such as gari and other farm crops. But most importantly, they organize the distribution of very scarce commodities such as milk, sugar, stockfish and beverages which have virtually disappeared in the open markets as unscrupulous traders hoard the commodities to reap windfall prices. Some of the better organized cooperatives have even taken to some local processing and manufacture.

Evidently, the pattern of government investment and industrial development has discriminated most unfavorably against rural populations although the bulk of public revenue is derived from rural-based primary activities. Highly placed public officials

excuse this situation by pleading that 'capital for balanced development' is still short and 'competing priorities' are many. They admit that industrial dispersion is inevitably desirable as a means of diversifying and stabilizing the state's economy, but they argue that it would be a costly social and economic gesture, in the present youthful circumstance of the state, to direct new industries to isolated rural areas where there are practically no supporting infrastructural base nor sufficient threshold demand. We can only conclude from this that small-scale, labor-intensive projects for rural communities are not presently one of the government's priorities. But the rural folks see the high increases in national and state revenues from oil and they want their share of it.

#### The Development of Social Services

The provision of adequate and better social services and utilities have been a persistent and legitimate demand of all societies in Nigeria since independence, but more so in depressed and neglected area such as certain Rivers State communities. To these Nigerians, this should be a logical accompaniment to the development process that is now powered by high petroleum revenues. The colonial administration deliberately failed to meet such basic needs of the people because it was expedient within their economic policy of exploitation to do so. Successive post-colonial nationalist governments have paid only lip-service to the concept of 'a balanced socio-economic development' which would meet the 'ultimate aspirations' of every society in the country. Qualifying

this in a statement of its policy objectives at the crest of the oil boom in 1975, the federal government let it be known that

However, development is not just a matter of growth in per capita income. It is possible to record a high growth rate in per capita income while the masses of the people continue to be in abject poverty and lacking in the basic necessities of life, particularly in a situation, such as in Nigeria today, where the momentum of growth derives from a sector (oil) whose direct impact on the bulk of the population is small. An important objective of the plan (Third National Development Plan), therefore, is to spread the benefits of economic development so that the average Nigerian would experience<sup>25</sup> a marked improvement in his standard of living.

A field survey of the conditions and availability of essential social services in the Rivers State in 1977, three years after the Plan implementation began, reveals very little adherence to these noble objectives. First, the entire development strategy has been weighted more heavily in favor of economic growth than social and welfare development. Second, there is the old question of balance between the location of social service facilities in the Port Harcourt municipality and the countryside, on the one hand, and the number and servicability of such facilities to cope with increasing population and rising expectations, on the other. The people and the economy of the state would probably respond more easily to the growth of the petroleum sector if additional demand were widely distributed. One approach would be to improve the supply of public and social services outside the city of Port Harcourt. This is not simply a welfare argument for public services. In some areas even skeletal services do not just exist while some others are relatively over-supplied.

The provision of social amenities to communities outside the

main urban center is seriously constrained by a number of problems. One is the determination of an appropriate basis for the 'efficiency' of public enterprises. Usually Administrators and bureaucrats insist on financial and not social profitability. It is often felt that rural populations are not sufficiently concentrated and virile enough to be profitably provided with amenities such as electricity, pipe-borne water, hospitals, etc. This argument is more forcefully pursued in the case of the sparsely populated riverine parts of the Rivers State. But social profitability is just as important and a financially unprofitable enterprise may be socially worthwhile.<sup>26</sup> It merely begs the question of establishing and applying appropriate criteria for social profitability.

There is also the problem, according to O'Connell, that planners have never really considered rural communities as one of their constituents.<sup>27</sup> These city-based technocrats, who suddenly found themselves in a commanding political and administrative decision-making position, do not derive their authority and position from the people and so are not accountable to the people as well. Rather they are sustained by and exploit the inexperience of the successive military regimes who have had to rely increasingly on their "technical advice." Since neither the ruling military hierarchy nor their elite civilian advisers have to face the electorate (80 per cent of whom live outside the metropolis) peasant needs and grievances are not considered seriously. Also, such rural dissatisfaction is not coordinated and articulate enough to exert serious political pressure as in the city, where glaring deficiencies occasionally make newspaper headlines.

Table 3.5 displays estimated expenditure by sector of the Rivers State government under its Five Year Development Plan-1975-80. Social services such as education, town and country planning, transport, health, sewage, drainage and housing are highly emphasized, but these are essentially city-oriented services, whereas services with high rural emphasis receive very low priority. But even discounting this fact for the moment, an expenditure of only N35 million over five years to improve health services for more than two million people where practically none already exist, for example would appear to be extremely insufficient. The same argument is applicable to any other sector in this program—a situation made more unrealistic by current rising costs and deteriorating naira value.

The hopeless state of health services in the state generally is indicated in Table 3.6. The serious inadequacy of both medical personnel and facilities is very obvious. For instance, up to 1975 there were only 87 qualified medical practitioners in the entire state which, given an estimated population of 2.1 million, translates to 1 doctor for over 24,130 persons (the national average was 1:2200). Even then most of these were expatriates. The corresponding ratio for dentists was 1:525,000. Only 1874 beds were available in all hospitals, health centers and maternity homes which amounts to 1 bed for every 1,120 patients. Yet these figures are misleading because most of the personnel and facilities represented here belong to the Federal Military Hospital in Port Harcourt which is closed to the civilian population and to elite private hospitals whose services the common people could not afford.

Government's objective in allocating N34,805 million for 5

Table 3.5. Rivers State Five-Year Development Plan 1975-80  
Estimated Expenditure by Sector.

<u>Sector</u>	<u>₦ In Million</u>	<u>Percent</u>
Education	74.300	15.7
Town and country planning	55.500	11.6
Transport	51.650	11.2
Agriculture	48.150	10.1
Commerce and finance	43.100	9.1
General administration	40.877	8.9
Industry	36.228	7.8
Health	34.805	7.5
Sewage and drainage	26.000	5.8
Information	12.310	2.5
Housing	10.000	2.3
Social welfare and sports	9.350	1.9
Power and rural electrification	8.000	1.5
Water	7.600	1.4
Livestock and veterinary	5.700	1.2
Fisheries	5.538	1.2
Forestry	2.000	0.2
Cooperative and community development	<u>1.200</u>	<u>0.1</u>
Total	<u><u>₦472.308</u></u>	100.00

Source: Ministry of Economic Development and Reconstruction, Port Harcourt; Rivers State Development Program of the Third National Development Plan 1975-80, p. 161.

Table 3.6. Rivers State Medical Statistics 1970-75.

Registered Categories	1970	1971	1972	1973	1974	1975
Dentists	1	1	1	4	4	4
Veterinary Surgeons	--	--	--	--	--	--
Laboratory Technologists	4	6	6	7	6	7
Pharmacists	7	16	24	28	28	42
Medical Practitioners	41	74	62	68	77	87
Nurses	160	137	236	252	214	214
Psychiatric Nurses	--	4	4	7	7	7
Health Nurses	3	4	4	4	4	16
Nurses Tutors	2	4	4	4	4	4
Midwife Tutors	1	2	2	2	2	2
Nurse Administrators	1	3	3	3	5	5
Public Health Nurse Tutors	1	1	1	1	1	1
Midwives	81	62	62	144	144	198
<b>Total Medical Personnel<sup>a</sup></b>	<b>302</b>	<b>314</b>	<b>409</b>	<b>524</b>	<b>496</b>	<b>587</b>
Hospital and Health Center Beds	1,073	1,364	1,345	1,338	1,454	1,510
Maternity Beds	180	118	179	160	236	364
<b>Total Beds</b>	<b>1,253</b>	<b>1,482</b>	<b>1,524</b>	<b>1,498</b>	<b>1,690</b>	<b>1,874</b>
<b>Rivers State Estimated Population</b>	<b>1,824,377</b>	<b>1,870,567</b>	<b>1,917,921</b>	<b>1,966,469</b>	<b>2,016,242</b>	<b>2,067,287</b>

<sup>a</sup>Includes doctors, nurses, pharmacists and para-medical personnel.

Source: Ministry of Economic Development and Reconstruction, Port Harcourt: Rivers State Development Program of the Third National Development Plan, 1975-80, p.84.

years for health improvement is 'to reduce substantially the various shortages that exist in the state's public health service and to maintain a balanced distribution of service to all communities.' In 1977 there were only 20 health centers in the state and only 5 of these are full-fledged hospitals 4 of which are in Port Harcourt alone. Six of the 20 health centers are self-help community projects while seven were former mission hospitals forcibly acquired by government from various missionary denominations in the aftermath of the civil war.<sup>28</sup>

The document setting out the government's basic health policy appeared comprehensive, perhaps incisive, but again actual performance seems to be far short of projections. Programs envisaged included the expansion of existing Port Harcourt Dental Center (N150,000), establishment of infrastructure for preventive health programs and care system for populations in rural and remote areas (N5,950,000), the establishment of medical institutions in the state (N17,000,000), maternity and children's wards in existing hospitals (N5,000,000), control and treatment of infectious diseases (N1,500,000), training programs for nurses, midwives and paramedicals (N3,500,000), and extension of medical stores, laboratories and staff quarters (N1,705,000). Although some of these are already in the process of implementation (while others are still on the drawing board), there is now no guarantee that the projects would be completed because as the federal government has lately directed, all state and federal projects must have to be seriously re-examined and drastically curtailed because the oil industry is in trouble.<sup>30</sup> Already most projects have been dropped, including health programs.

Therefore, there is not much chance left to improve the very poor health services of the oil-rich Rivers State (and of other states) even as the population continues to grow, outstripping available facilities.

The performance of the Rivers State in the field of education clearly illustrates the regressive nature of social and welfare services in the country even as it became richer with the 'oil boom.' In 1970, just before the state government took over all missionary and private schools, the proportion of primary school-going children who were actually in school was 53.75 per cent. In 1975 this proportion dropped to 41 per cent simply because classroom spaces and other education infrastructure and services were not being provided sufficiently enough as before to cope with the rising increase in the number of children ready for school.<sup>31</sup> Also in 1970, 49.6 per cent of primary school children could find places in the secondary grammar schools, but in 1975 the corresponding figure was 44.1 in spite of the fact that existing schools were unbelievably over-stretched in terms of accommodation, apparatus and personnel.

There was also a very significant qualitative decline in the standard of education resulting partly from having to stretch limited resources. Two hundred ninety seven out of 300 respondents, including parents, teachers and school administrators, or 99 per cent, agreed that the quality of education is declining drastically instead of improving and blamed this on understaffing and under capacity of available resources, as well as bureaucratic inefficiency resulting from government take-over of schools.

One thing most people in the state cannot yet understand is why, given the high financial returns to government from the oil industry and what appears, at least on paper, to be reasonable allocations to various sectors of public services and infrastructure, things are as bad as they are today. It is obvious that government is trying to do many things or solve so many problems all at a time and in a hurry. This leaves it with little time for thorough planning and execution, which allows corrupt and unscrupulous public officials to have a field day.

Capital allocation for the improvement of public education tops the list of the 1975-80 development program (Table 3.5) standing at ₦74,000 million or 15.7 per cent. In the previous program (1970-74) capital expenditure on education was said to be ₦5.575 million.

Yet there is virtually a lack of everything in all levels of schools—qualified teachers, school buildings and classroom spaces, furniture, equipment and other technical facilities, a good transport system, especially riverine transport for schools' administration and inspection and to enable whatever essential school supplies are available to reach the creeks and other remote areas. Other shortages include audio-visual and learning aids, facilities for the expansion of adult education programs and very importantly, poverty or unsuitability of all existing curricula to the social and economic development needs of the people.

For instance, in 1973 there were only 552 primary schools in the whole state in which 6163 teachers taught 232,840 pupils at the average of 422 pupils per school and 38 pupils per teacher in one classroom (in Port Harcourt city there were some schools with 73

pupils in a class taught by a single teacher).<sup>32</sup> In 1977 the total number of primary school enrollments reached 368,693, but spaces and facilities were still of the 1972 level. Situations like this have led to the worst school admissions crisis parents have ever faced. One of the most glaring and frequent irregularities in the state was that parents were forced under these circumstances to pay bribe money to school administrators from ₦50 to ₦150 just for one admission spot, depending on the location and reputation of a school. Admission crises are much worse in the secondary school level, although as much as 90 per cent of all enrolled students in 1975 are in the primary level as against 10 per cent in the secondary and post secondary levels.

A number of specific solutions have at various times been directed at one of these particular problems, often in isolation to other related or complementary ones. For instance, between 1970 and 1972 when the very serious inadequacy and lack of emphasis on technical and vocational education became, not only a state but also a national concern, every available resource was mobilized, including cutting other educational programs, for the founding of the Port Harcourt College of Science and Technology. But technical education is just one—not even the most pressing—of the problems in a state where mass illiteracy was so high. What would have been the most comprehensive and far-reaching educational project—one which would have touched down to the fundamental cause of mass illiteracy—was the proposed Universal Primary Education (UPE), but it failed even before it took off.

Since the cost of primary education had been keeping many

Nigerian children from benefiting from formal education and the country had suddenly 'become rich' the federal government introduced the UPE scheme between 1975 and 1976. The federal government would foot the bill so that primary education would be free and compulsory to all Nigerian children between the ages of six and eleven. It is one of the ironies of the Nigerian educational story (indeed that of the whole development process) that the gigantic UPE exercise started casually when the head of the Federal Military Government was on tour in the northern part of the country in 1974: in response to a question from a small girl, who had been kept out of school by the cost of education, the general announced that the country was ripe (at least financially) for Universal Primary Education. Thereafter the Federal and State Departments of Education were ordered to set things moving immediately.

Thus it was only after the scheme had officially been launched that public servants battled to collect data and other relevant information to operate with. How much will it cost? How many pupils will be involved? Where will the teachers and other personnel to man the program come from? How many additional classroom spaces, equipment and other facilities will be needed? How is the entire program going to be coordinated throughout the country so that it will work? Nobody had any specific answers to these and more questions at the beginning. However, provisional estimates gave an annual cost of ₦208 million for the first six years and ₦600 million a year later when full attendance had been reached. By 1981, 19 million school children would have been enrolled as against 4.5 at the beginning of the program, and an additional

450,000 teachers would have been added to the 150,000 already in existence, and so on.<sup>33</sup>

The UPE scheme did not work in the Rivers State even for one day. It turned out to be the biggest hoax and the greatest source of frustration the people had ever experienced. School children swarmed the schools in response to the call only to find that practically everything was in short supply and that their parents could not cope with tuition and maintenance costs contrary to what was promised. What happened to the huge financial allocations to the state's program was common knowledge. Opportunist adventurers—the so-called 'indigenous contractors'—appeared overnight by the hundreds and quickly made the 'right connections'. By a complicated series of maneuvers (including as much as 40 per cent kickbacks) they soon captured all the UPE contracts ranging from the construction of new classroom blocks to the supply of furniture, books and equipment at costs to government that have been deliberately inflated many times over. But the worst yet is that they often collected 90 per cent of the cost of any project as 'mobilization fee' before even signing the contract and thereafter disappeared for good without doing any work or delivering anything. In other words, the UPE program, instead of being the panacea to the state's educational woes, which it was envisaged to be, produced instead a corps of indigenous millionaires who would send their own children to costly private schools abroad to receive better quality education.

Officially, government has told the people that the UPE scheme can no longer be implemented after all, because the petroleum industry, which is the steam that powers all development processes

in the country, is in serious trouble (Chapter 2). However, its lack of success or achievement before this last blow shows up the fact that human problems, more than financial ones, are now the greatest impediment to social and economic development in the country.

Rural and urban water supplies are notoriously inadequate and unhealthy among the communities of the Rivers State. Ironically, the water-rich state is very much short of suitable drinking water as the cholera outbreak of 1971 clearly demonstrated. In the riverine areas, there is much water, but most of it is salt water from the sea. Fresh water sources in the upland areas have been heavily polluted. Even in the city of Port Harcourt, water supply infrastructures are still of the 1968 level when the population of the city was only 179,563 and the number of industrial establishments was 14. The city water taps are usually dry for 12 hours every day and sometimes for a whole week long or more during which time inhabitants resort to heavily polluted open streams and creek water.

The city water supply system was severely damaged during the civil war. The highlight of the state's water programs since then has been only restoring some of the damaged facilities—no new installations have been completed even with the quadrupling of the population. Outside the city, pipe-borne water is not available except in small divisional headquarters such as Ahoada, Bori, Elele, Omoku and Bonny where small pumping engines recently installed break down most of the time.

The current expenditure program in this sector calls for an investment of ₦7.600 million over five years. Even in the most unlikely event that all of this money would honestly and stringently

be applied to solving water supply problems, the magnitude of the problem alone makes this allocation look like child's play. Urban water supply alone (i.e. Port Harcourt) claims ₦2.0 million of this while ₦2.0 million would be spent, under government's rural development scheme, to provide 'a good source of drinking water to every rural community in the state.'

In effect the government's effort is limited to assisting only those rural communities who have been able to develop their own water programs and these are not many as Table 3.7 shows. These programs involve developing shallow bore-holes of a maximum depth of 46 meters with hand operating 'mono life' pumps. The most efficient of these pumps, for example the ones at Omoku and Izombe, are capable of lifting about 2,000 liters of water per hour, but for settlements of over 20,000 inhabitants, one must queue, even fight for a turn. During one of my field investigations, I encountered many inhabitants of Isiokpo who had spent three to four hours waiting and quarreling to draw water from one such pump after having travelling a distance of nearly three miles. The water itself, when finally drawn, is discolored and foul tasting. In Bonny, Okirika, Kalabari, Brass, Oporoma and Kaluama Divisions ground water is highly saline because sea water intrudes into surface streams. What such communities need is good pipe-borne water from outside their immediate environment. Meanwhile this is not being provided.

The stated conditions under which government can only release 'Matching Grants' in aid of community development clearly discriminate against small populations of 10,000 or less. Only those communities which have already initiated projects and have 'shown

Table 3.7. Rural Water Supply in the Rivers State, 1972-1976.

<u>Division</u>	<u>Total Number Installed</u>	<u>Remarks</u>
Abua/Oduai	33	
Ahoada	41	
Bonny	2	Saline area
Bori	24	
Brass	1	Saline area
Etche	55	
Ikwerre	57	
Kalabari	1	Saline area
Khana	47	
Kolnama	-	Saline area
Obio	4	
Ogba/Egbema	40	
Ogbia	23	
Okirika	8	Saline area
Oporoma	12	Saline area
Tai/Eleme	19	
Yenegoa	26	
Total	<u>393</u>	

Sources: 1. Ministry of Information, Port Harcourt, Rural Development, May 1976.

2. Field work, 1977.

themselves capable of completing and maintaining their projects' are considered for matching grants.<sup>34</sup> In Table 3.8 we show the distribution of these grant-aided projects among the administrative divisions and the extent of government grant-in-aid, which are less than 50 per cent of actual project costs. With even the most modest construction or service, projects running into hundreds of thousands of naira at today's prices are beyond the means of small communities, which cannot come up with the required initial investment to qualify them for government aid. These villages must, therefore, remain deprived and watch 'black gold' from under their compounds flow for the benefit of others.

One of the most agonizing inconveniences the peoples of energy-rich Rivers State, and Nigeria as a whole, have had to put up with is insufficient and often interrupted electric and other forms of energy supply. In Chapter 2 we noted that the country on the average flares about 30,000,000 cubic meters of natural gas a day in the process of petroleum production. Aside from the direct economic value of the lost gas, its flaring represents an opportunity lost in rural development since, with better planning, it would have been a most useful and appropriate means of generating cheap and abundant electricity which will not only replace or supplement the dwindling traditional forms of energy but also be the basis for the establishment of many forms of rural industry and other enterprises.

There is a state government program for rural electrification for which ₦8 million has been set aside under the current development plan. Surprisingly this program would be integrated to the rest of

Table 3.8. Total Community Self-Help Projects and Government Grants in Aid.

<u>Division</u>	<u>Projects</u>	<u>Grant Aid (₦)</u>	<u>Projects Completed</u>
Abua/Odual	57	74,950	19
Ahoda	79	102,000	30
Bonny	30	35,700	12
Bori	40	53,750	24
Brass	48	50,700	20
Etche	83	120,050	32
Ikwerre	64	80,250	28
Kalabari	33	66,150	29
Khana	42	65,450	26
Kolnana	18	23,400	12
Obio	50	51,650	15
Ogba/Egbema	43	69,000	20
Ogbia	37	50,400	20
Okirika	33	52,450	17
Oporoma	60	58,300	35
Port Harcourt	11	17,400	6
Tai/Elemo	51	68,700	29
Yenegoa	60	82,450	38
<b>Total</b>	<b>839</b>	<b>1,122,750</b>	<b>412</b>

Summary

a) Total Projects Grant Aided	839
b) Total Grants Paid Out	₦1,122,750
c) Average Grant Per Project	₦ 1,338
d) Total Contributions by Communities	₦1,857,600

Sources: 1. Rivers State Ministry of Information, Rural Development, May 30, 1976.

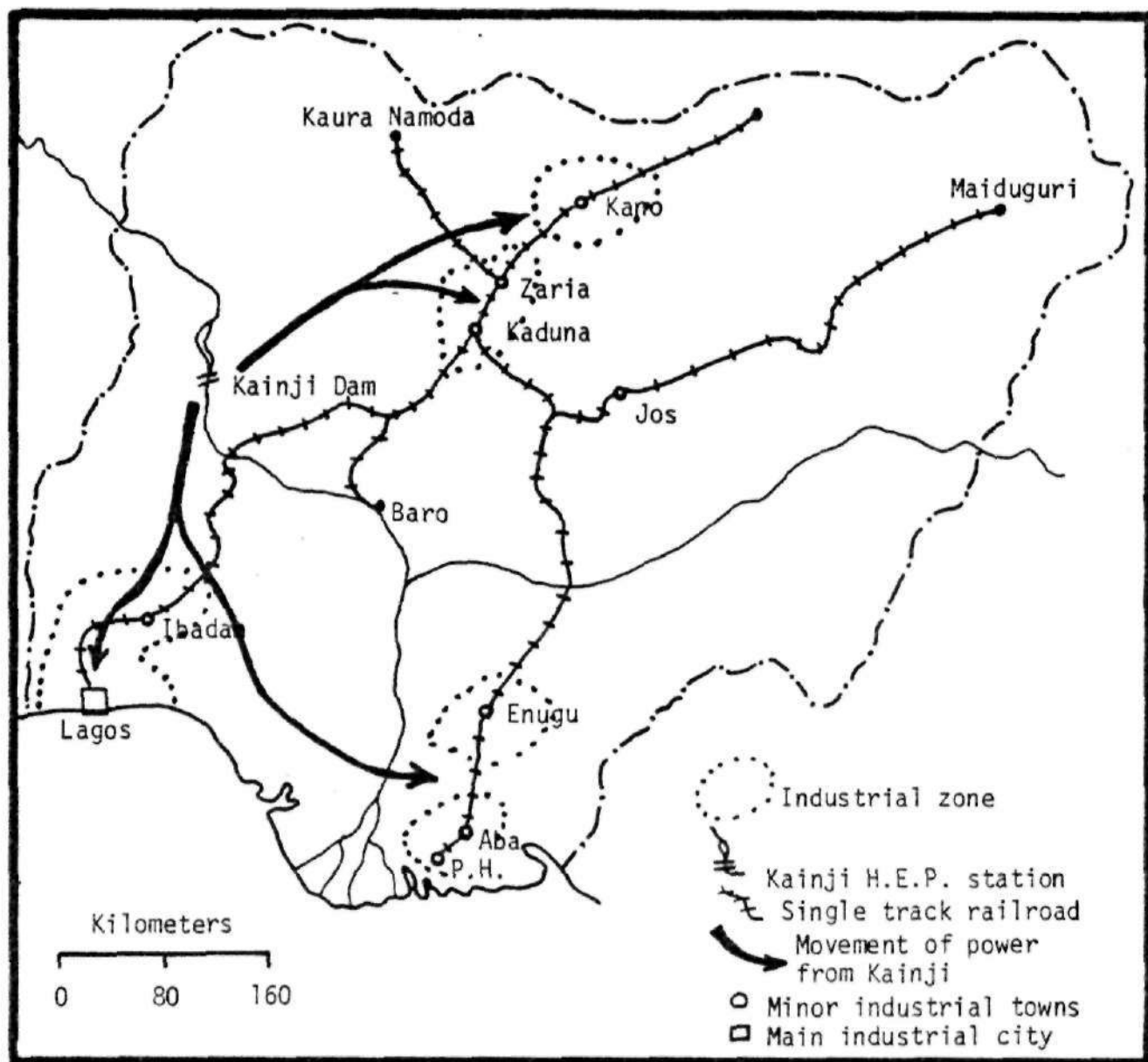
2. Rivers State Ministry of Rural Development and Social Welfare, Port Harcourt, unpublished records.

Note - Projects concerned are diverse—includes from local bridge or road construction to the building of community post offices, town halls, health centers and market stalls.

the national rural electrification scheme based on hydro electric generation at the Kainji Dam (Figure 3.2). But power from this source fluctuates dramatically along with the seasonality of the Niger River. Also most of the power produced is lost during the long distance transmission to the scattered centers of heavy consumption, i.e., the industrial and commercial centers of Lagos and Kano (Figure 3.3). A substantial part of Kainji power is also exported to the neighboring Republic of Niger even when a lot of domestic demand is unmet. No city in the country, not even Lagos, receives up to 60 per cent of its daily electric need. Therefore, a rural electrification project (particularly for the remote settlements of the Rivers State where cheap natural gas is nature's free gift) which is based on this insufficient source looks like another practical joke.

The only gas thermal stations in Nigeria at present are the small plants at Afam in Imo State and Ughelli in Bendel State which produce respectively only 55 MW and 50 MW for the fledging commercial centers of Aba and Warri. The National Electric Power Authority (NEPA)—a statutory government corporation which has become a public burden rather than an asset—has a monopoly in the country over the production and distribution of electricity. It strictly controls and carries out all additional power extension in any part of the country. With constant power failures and shortages in all the major cities generating critical protests and reactions from all sections of its clientele (mainly industries, commercial houses, other government departments, city populations, etc.), the Authority understandably is in no mood to make rural

FIG. 3.3. NIGERIA: POWER GENERATION AND INDUSTRIAL LOCATIONS.



electrification its top priority. This is one reason why the rural electrification scheme in the Rivers State has been bogged down by so-called 'feasibility studies' for over three years.

The foregoing developments are clearly indications that public works and social services generally have not received the benefits of increased public revenue from oil. This is unfortunate because, while the oil industry had peaked since 1974/75 and is now declining, the social and economic problems which it either created or aggravated have remained unattended to and, who knows when the next opportunity might strike. But for now, an invaluable chance appears to have been lost in improving the living conditions of an overwhelming number of Nigerians as our examples from the Rivers State would indicate.

#### The Oil Industry's Direct Contribution to Local Development and Social Welfare

Our discussion so far has been concerned primarily with the failures and inadequacies of public programs to alter the conditions of backwardness in the country on the basis of the rare opportunity presented by the oil industry. However, conventional economic thinking, such as we outlined in the introduction to this work, sees the foreign industry on its own making very substantial contributions to the development process through the medium of a number of indirect linkages to the local economy and society.<sup>35</sup> It does not matter whether a foreign-owned export industry functions as a foreign enclave initially when most local factors of production could not be

adapted to the new production techniques. In the long run a linking-up process occurs to end the 'dual economy' condition and this results in unexpected gains to local interests. Let us consider then what benefits local communities have derived directly from the oil industry.

Gains to local communities can be considered as the incomes of all local factors employed by the industry and as the fringe benefits that accrue to the community as a result of the industry's existence. These factors can be local labor, materials and services directly and indirectly absorbed by the industry. The gains may be considered in terms of either financial rewards to local factors (e.g., wages and salaries to local personnel); as a share of industry's product or as direct voluntary contributions to development projects in the community.

On these issues, Shell-BP in its statement of general business principles in 1977 clearly states what its position (and those of the other multinationals) were:

The most important contribution that Shell-BP can make to the social and material progress of Nigeria is in performing efficiently its direct line of business. Furthermore, it is neither feasible nor proper for Shell-BP to pre-empt the responsibilities of the Federal and State Governments in providing and maintaining social facilities and services.<sup>36</sup>

By performing efficiently its direct line of business Shell-BP or any other foreign oil company for that matter expects thereby to raise oil revenues and make substantial profits for itself and the government (see Table 2.) If the government cannot or does not want to use the profits it had been able to 'extort' from the oil companies to discharge its responsibility to its peoples of

providing and maintaining adequate and efficient social facilities and services, then the companies are not to blame and they would not cut further into their own profits to subsidize the government. And to perform efficiently industry would be justified in deploying a large pool of foreign labor, material input and services if these are judged to be more efficient than their local alternatives. These are essentially what Shell-BP's message above is saying and their field operations confirm it.

In 1972 Philip Asiodu, who was the boss and sole authority representing government interests in the oil industry—a 'good friend' of the industry—reluctantly charged that 'the oil companies were purely extractive, investing locally the barest minimum necessary to find oil and take it out. They and their associates have been content to contract out all the services they can to overseas companies and to make their purchases from America and Western Europe, and have not tried in any way to encourage ancillary industrial development in this country.'<sup>37</sup>

One thing about which local residents of the oil fields have complained very bitterly is that their share of total industry employment has been very minimal both in numbers and quality. Unfortunately, the oil companies would not release a statistical breakdown of the labor situation in the industry, especially Shell-BP, Agip and Elf who are most active in the Rivers State. Neither the NNPC nor the Ministry of Petroleum Resources has any up-to-date and accurate information on this vital subject. But Pearson, obviously facing the same frustration, has managed to come up with independent figures on the employment situation in

the industry in Nigeria as a whole, on which Table 3.9 is based. This is a very rough estimate at best, and what would appear as *senior management and supervisory positions for Nigerians*, although still few in number, actually do not carry appropriate level of responsibility and control.

The real position is that when the foreign companies first entered Nigeria, they had to draw from their pool of international oil company employees a large number of managers, technicians and skilled labor which were not available anywhere in the country. But in time, this practice continued, contrary to the integration hypothesis, because such highly paid and sometimes dubious employees formed one of many conduits for draining most of the oil revenues and profits out of the country. There were very little effort and enthusiasm to train many Nigerians to take over most of the highly skilled and strategic jobs.

The Nigerian petroleum law of 1969, which was subsequently amended in 1975 and 1976, partly sought to remedy the situation by specifically requiring that the international oil companies reduce the quota of their 'expatriate employment' to 25 per cent of their total labor force.<sup>38</sup> The companies have not complied with this requirement (which is why they would not disclose details of their labor statistics), having devised several ways of getting around it, but they have noticeably stepped up programs of training and instructions to upgrade the proportion and quality of their Nigerian employees. This is competitive for all Nigerians whether or not they came from the oil regions, but what the oil communities are asking for is that a certain quota of employment opportunities in the

Table 3.9. Levels of Employment in the Nigerian Petroleum Exploring and Producing Industry, 1964-67.

	Number of Employees			
	1964	1965	1966	1967
Total employees	3,075	3,135	3,438	3,901
Nigerian Employees:				
Total	2,627	2,668	2,900	3,252
Management		6	16	16
Professional	74	85	{534}	141
Supervisory	{558}	39	{534}	465
Skilled labor		{1,750}	882	1,043
Unskilled labor	1,393		898	969
Other*	602	788	570	618
Expatriate employees:				
Total	448	467	538	649
Management	{301}	31	39	47
Professional		280	{495}	379
Supervisory	{147}	{156}	{495}	185
Skilled technicians			4	38

\* Residual category

Source: S.R. Pearson, Petroleum and the Nigerian Economy, p. 84.

industry be reserved for them as of right and privilege. Meanwhile as much as 95 per cent of local peoples employed by the industry in 1977 in the state consisted of unskilled, daily-wage laborers who work on exploration teams and construction gangs.<sup>39</sup> Many of them receive on the average of daily wage of ₦21.50 which was 44 per cent better than the nation's minimum wage, but once they completed one project they had no guarantee of further employment. Under these circumstances, financial rewards to local labor have been rather insignificant.

The industry's effort to train and upgrade its Nigerian staff takes three forms—scholarship awards to all levels of technical and other educational institutions, in-house training programs and on-the-job training. As we pointed out before, we are dealing with a highly capital and technological intensive industry with very little labor component. Thus the number of people involved in these training programs must be very small indeed. Besides the specialized nature of the oil industry and its training programs would seem further to constrain the full extent of skilled labor contribution the industry would make to the non-oil sector. The Shell-BP runs two petroleum training schools, one in Port Harcourt and the other in Warri, where 160 personnel each year receive 18 months of technical training in the oil field. Between 1970 and 1977 Shell-BP, Elf and Agip together awarded 542 primary school and 9 post secondary scholarships in the whole of their Eastern division which included the Cross River, Imo, Anambara and the Rivers States (population approximately 12 million). These are far too small statistically to be interpreted as a significant contribution to both local and

national manpower development.

What of the 'staggering developments' that are thought to be taking place among local oil producing communities purely on account of industry's direct procurement of domestic goods, materials and services, or as a result of the attraction and incentive it provides for different kinds of service and processing establishments to cluster and grow? As in the case of labor, it must be clear that few or none of the sophisticated variety of industrial inputs (materials and services) which the international oil industry was accustomed to using would be initially available locally. Adapting those that do exist takes time. But the industry's planning horizon would not allow for gradual adaptation, for this would lengthen the time needed to bring the venture into fruitful production, would increase costs by delaying the return on the investment, and would raise the unpredictability (risk) of the outcome. The easier and more rational alternative (from the investor's point of view) would be to transfer the inputs on which the industry has come to rely. But in this way, an enclave is born characterized by a series of gaps between the inputs locally available and the ones demanded by the export industry. In time this adaptation and integration must inevitably occur, it is hoped, leading to an increase in the local share in the business.

*If these suppositions were real and had worked out in the case of the oil producing areas of Nigeria or for the country generally, then the industry would not have been 'purely extractive.'* In 1970, for example, the oil companies spent ₦130 million in Nigeria on services, but less than 10 per cent of this

was on services provided by Nigerian-controlled companies or on materials manufactured domestically with a high local content. Between April 1970 and March 1971 alone, the oil companies spent N176 million on internal payments (though mainly to foreign contracting firms based in Nigeria) but over N200 million on goods and services abroad.<sup>40</sup> Thus for Nigeria, as the post-civil war oil boom got under way, she still faced an increasing unfavorable balance of payments and the upsurge in this from N108 million in 1969 to N186 million in 1971 and to N471.4 million in 1972 which were caused almost entirely by transfers out of Nigeria by the oil sector (in 1971 the oil companies transferred out N212.4 million which almost exactly matched the increased invisible deficit).<sup>41</sup> These purely extractive practices of the oil companies led Dr. Clement Isong, then the governor of the Central Bank of Nigeria, to disclose that the favorable trade balance in the oil sector in 1970 was N464 million; but of this only 44.5 per cent was reflected in the national balance of payments. The remainder was absorbed by the international oil companies' and their service firms' repatriations of profits, dividends and foreign employee's salaries.<sup>42</sup>

Conditions changed slightly in the post civil war period when the entry of many more prospecting and production companies and the general growth in the industry permitted some peripheral participation by Nigerian-owned businesses in the provision of support services. But again people in the vicinity of the oil fields could not compete favorably with indigenous tycoons from other parts of the country and the industry had no basis for preferential treatment in the award of such minor subcontracts.

The minor support services which Nigerians have been able to penetrate include transportation and materials haul, clearing of sites for pipeline routes, supply of timber, sand and gravel for fortification purposes, some form of catering and the provision of commissary goods. Even in these, only the lowest paying jobs such as the temporary labor used in bush clearing or digging embankments are readily available to most local people. Thus their share of the restricted indigenous business and the rewards accruing from this have remained small. It is a source of dissatisfaction and a sense of bitterness to the people.

The other forms of specialized services and subcontracts which Nigerians generally have not been able to penetrate are seismic and drilling jobs, surveys, construction of new facilities and roads, maintenance of equipment, dredging works, insurance, etc. The foreign operators of these services make no effort to look for and develop some local materials needed in their operations. Instead they prefer to import from every mechanical and electronic equipment down to materials like cast iron, steel pipes, chemicals, cement and even drilling mud all of which could be manufactured locally if the necessary investment is made. In addition, these firms contract with the oil companies to receive Nigerian currency in payment for services rendered only to the extent of their needs in Nigeria, with the remainder stacked up abroad in fully convertible currency where they have zero impact on Nigerian National Productivity. The dominance of these ancillary services by foreign interests is therefore, the result of expatriate collusion, supported by the argument that the required technical expertise, experience and

resources (mainly capital) are lacking at home.

When the expanding oil industry in Nigeria reached a very highly profitable and fairly consistent economic level of production, it became expedient for the oil companies to provide their army of foreign, and sometimes intermediate indigenous, employees with some necessary infrastructure and essential services that were not existent or seriously inadequate and inefficient in their areas of operation. These included hospitals and medical care, modern housing projects, water treatment and distribution, schools and other educational facilities, uninterrupted electricity, recreational and other social facilities and services. But these are only available at the companies' exclusive residential reservations at the suburb of Port Harcourt.

For instance, Shell-BP has an excellent hospital—the best in town—at the company's residential quarter or village at Umumacy, 5 kilometers from the city. The village itself, designed with the European and other foreign employees in mind, stands in sharp contrast to the surrounding chaos and squalor in the rest of the city in terms of planning, hygiene, services, class and so on. This is not our point of immediate concern however. The point is, if these are fringe benefits accruing from the success of the oil industry, and they are, why would they not be extended to the communities in the vicinity of the oil fields who have to live with the pollution and other negative impacts of the industry (not even the rest of the city's population has access to these facilities)? There seems to be a deliberate corporate policy of indifference or non-commitment to these communities' rural

improvement programs, although the companies can afford to be generous; hence the pretext that the industry would be acting improperly were it to 'preempt the responsibilities of the federal and state governments in providing and maintaining social facilities and services.'

Out in the rural oilfields, the companies maintain small camps for their field employees which are of a very temporary and transient nature. Very limited facilities are provided strictly for the comfort of such employees. The camps also contrast sharply with the surrounding rural countryside in a way which creates a whole range of dualism between them. Camp people have a very strong purchasing power and so spend very freely on a variety of items ranging from local food products to imported consumer goods. Thus camp sites tend to attract many temporary settlers from near and distant places who engage in providing a variety of tertiary activities without a supporting secondary economic base. Ebocha and Obirikom—two Agip locations in Ogba/Egbema division—are examples of such settlements whose inhabitants have become increasingly dependent on services they provide to the oilmen. As soon as such oil locations become abandoned by the company for a number of possible reasons, the settlements begin to disperse and decay, being unable to stand the shock of the short-lived contact with a capital intensive society. Ughelli in Bendel State is an example of such oil settlements that once boomed and then waned, according to Rose Agori-live.<sup>43</sup>

It is quite obvious that oil has added an extraordinary dimension to the population and economic boom that have occurred in Port Harcourt and some other Nigerian big cities such as Lagos and

Warri. This is one of several rather adverse spatial expressions of the industry because such a negatively skewed allocation of the oil industry's income has created serious problems of regional development and social frictions which would most likely remain long after oil is gone (Chapter 4).

Road construction and maintenance are projects which the oil companies inevitably had to undertake in order to function effectively. Because of the harsh and inhospitable conditions of most of the Niger Delta which we examined in Chapter 1, the cost of building such roads is high even when, for the most part, they traverse uninhabited swamps and thick forests. In Ogba/Egbema, for instance, the two companies whose concessions cover the area—Elf and Agip—together built 157 kilometers of secondary surfaced roads by 1977 at a cost of nearly N0.96 million. The various companies also maintain efficient steam boats, ferry crossing and landing facilities, and built durable bridges. They often cite these, in response to their critics, as evidence of their involvement with rural development and economic growth. But as we said, these facilities are seldom useful to the villagers whose economic and social interests do not always coincide with the direction and location of the facilities. In very limited cases where such is not the case, several artificial restrictions have been imposed to further reduce the usefulness of the infrastructure to the public.

Before 1969, some companies tried to exclude commercial vehicles from using roads and bridges constructed by them on the pretext that they could not insure the safety of road users from injury by heavy drilling machinery and apparatus that moved up and down the

roads. It took the petroleum decree of 1969 to crack down on such practices and to forbid oil companies from withholding their facilities from public use.<sup>44</sup>

Some of the oil companies, nevertheless, have responded positively as need arises, in aid of rural development. There is no contradiction here because often the value of such aid is so infinitesimal, compared to the worth of the companies' share of the oil business, to make much difference to the existing conditions in the villages. Shell-BP is decidedly the leader in this direction, probably on account of its longer acquaintance with and understanding of community problems, and also as a result of the preponderance of its share of the oil industry.

Shell-BP's Community Projects Department operates four agricultural development centers at Umuechem, Kpite, Bori and Kwawa aimed at teaching local farmers to adopt modern farming methods. The program also includes animal husbandry, domestic science training for women and child care training. In some locations such as at Bomu, the natives obtain drinking water from the company's flowstations. The company burns natural gas at Bonney to produce electricity—after its own needs are met a substantial proportion is donated to the town through the National Electric power Authority. Other donations in kind are sometimes made. In 1976 construction materials were donated toward the construction of the 'Unity Bridge' in Nembe and the community market and bridge at Umuechem. The Community Projects Director of the company disclosed that his department has spent (both in cash and kind) the sum of ₦60,000 between 1971 and 1976 to cover these projects. Elf Company spent ₦32,000 in the past

three years on similar projects in the state. The Agip Company did not return questionnaires dealing with this particular topic but the natives in most of their locations claimed that not much help has been extended to them. In general, it is certain that by making what appears to be only a token gesture to the social and economic plight of these oil communities, the industry is keeping its word not 'to preempt the responsibilities of the federal and state governments in providing and maintaining social facilities and services.' In that case the fringe benefits accruing to the communities from the oil industry has been very few indeed.

### Conclusion

The analysis in this chapter considered the failure of the public sector in the Rivers State to capitalize on the vast possibilities which oil wealth has created for breaking out of an old poverty and bringing development to all Nigeria's peoples. It also examined the attitude and support of the foreign-owned oil industry in this regard following the expectations of the linkage or integration hypothesis.

One of the most conspicuous results of the oil business today is the emergence of a national bourgeoisie and the growing strength of the indigenous private sector of the economy, all as a consequence of untrammelled and often recklessly bloated government expenditures. What are the present and potential development implications of these new forces? In other words, in the event that the Nigerian share of the oil booty eventually disappears

into private hands and management, would this create a trickle-down process which would be benevolent enough to better resolve the basic problems of present underdevelopment than the existing military and civil service bureaucracy? Unfortunately our analysis could not specifically deal with these issues.

Since the period of colonialism and after independence, Nigerians have increasingly relied on the public sector to provide services—education, health care, highways, etc.—and to regard this responsibility as the only justification for governments to collect taxes and raise public revenues. But the new brand of indigenous capitalists, who have themselves already shown signs of a most aggressive capital accumulation, public plunder and exploitation (as well as anti-socialist tendencies) are most likely to monopolize impending civilian administrations and to plead also non-preemption of governments' public responsibilities by the private sector.

It is significant to note that as yet there has been no arrangement or legislation (even decree) calling for separate treatment and use of petroleum-derived revenues. But it surely would make a lot of political, as well as economic, sense for the governments to require that a certain proportion of revenues derived from a major extractive industry such as petroleum be placed in a separate development fund. This is necessary, not only because such a procedure would guarantee that those who suffer the physical destructions that result in the process of oil exploitation get a fair share of the industry's revenues, but because it would also preempt much of the oil wealth for concrete and objective economic and social development planning, leaving less of

it for frivolous expenditures on purely symbolic, and highly inflationary, projects such as organizing and funding endless international festivals and trade fairs or the development of nuclear energy capacity even when local cheap natural gas remains unutilized.

## NOTES

- <sup>1</sup>Arnold, G., *Modern Nigeria*, Longmans, London, 1977, p. 62.
- <sup>2</sup>Peter Odell concludes that in Alberta, Canada, 'oil operations have given an important stimulus to employment in the construction industry, in services and in the retail and wholesale trades', in *An Economic Geography of Oil*, G. Bell & Sons Ltd., 1965, p. 185. In Libya, John Clarke (Oil in Libya - Some Implications, in *Economic Geography*, vol. 39, 1963, pp. 40 - 59) maintains that Oil exploration and production have led to the dramatic growth of the town of Benghazi where 'many of the Italian and Turkish buildings in central Benghazi are being rebuilt and the city is acquiring a new skyline'.
- <sup>3</sup>Federal Ministry of Economic Development, *Third National Development Plan 1975 - 80*, vol. 1, Lagos, p. 63.
- <sup>4</sup>Ministry of Economic Development and Reconstruction, Port Harcourt, *Rivers State Development Programme of the Third National Development Plan 1975 - 80*, p. 7.
- <sup>5</sup>Federal Ministry of Information, Lagos, *Second National Development Plan*, p. 11.
- <sup>6</sup>Based on Table 2.7.
- <sup>7</sup>Federal Ministry of Economic Development, *Ibid*, p. 341. As a result of OPEC's higher prices in 1976 which brought in more revenue

to the government, this landmark program was revised upward to ₦45 billion based on an expected oil production rate of over three million barrels per day. Not only has this expectation not been realized, but at the same time total oil revenue has been declining as a result of inflation and the falling dollar value. So in the 1978/79 fiscal year government indicated that the entire program might be severely trimmed in view of the situation in the oil industry on which alone the whole development plan depends.

<sup>8</sup>Even the 1978/79 Federal annual budget was undoubtedly weighted too much in favor of security and law enforcement rather than agriculture. In a recurrent expenditure totaling ₦1,960 million the government had allocated ₦817.7 million (41.7%) to defense, while the Police and the Police Service Commission got ₦165.1 million and ₦280,391 respectively, together amounting to 8.44% of the total. In comparison the government allocated ₦20.4 million to the Ministry of agriculture and Rural Development, equivalent to only 1.05% of the total recurrent budget.

<sup>9</sup>Ministry of Economic Development and Reconstruction, Port Harcourt, *Ibid*, p. 8.

<sup>10</sup>Ministry of Information, Port Harcourt, *Rivers State of Nigeria - 1977/78 Budget Broadcast*, April 14, 1977, p. 2.

<sup>11</sup>Ministry of Economic Development and Reconstruction, Port Harcourt, *Capital Estimates of the Rivers State of Nigeria, 1975 - 76*, p. 16.

<sup>12</sup>Ministry of Economic Development and Reconstruction, Port Harcourt,

*Ibid*, p. 7.

- <sup>13</sup>Daily Times of Nigeria, Monday, September 1977, p. 17. The OFN program was to be supplementary to the regular agricultural improvement projects under various Ministries of Agriculture.
- <sup>14</sup>Nigerian Agricultural Bank Ltd., *Guide to Applicants*, Baraka Press, Kaduna, p. 3.
- <sup>15</sup>Administration and Finance Department, NAB, Port Harcourt, personal interview.
- <sup>16</sup>Pearson, S. R., *Petroleum and the Nigerian Economy*, Stanford University Press, Stanford, 1970, p. 165.
- <sup>17</sup>Olatunbosun, D., *Nigeria's Neglected Rural Majority*, OUP, Ibadan, 1975, p. 48.
- <sup>18</sup>A sharp and penetrating critique of the present continuation of the Commodity Marketing Board Scheme and the injury this does to rural income is contained in *West Africa*, 8 May, 1978, pp. 877 - 879.
- <sup>19</sup>Ministry of Economic Development and Reconstruction, Port Harcourt, *Ibid*, p. 54.
- <sup>20</sup>Details of the State's road and riverine transportation improvement programs are contained in an official publication - *Rivers State of Nigeria: Road Development*, 1977, p. 20.
- <sup>21</sup>The evidence of corruption and nepotism in the transport corporation, as well as in other departments, is too overwhelming to invite denials. In 1974, for example, the Military Governor of the State, Commander D. Spiff, recalled his 76 year old father,

and run by various Missionary Organizations, although local communities contributed labor and materials during initial construction. At the end of the war, these Missionaries were suspected to have been unduly sympathetic to the Biafran course and may even have abetted and sustained the rebellion. In 'retribution' therefore, the various state governments took over immediately all such missionary schools and hospitals as public institutions. Since then standards in these institutions have deteriorated steadily to the chagrin of the consuming public.

<sup>30</sup>For details see *The Nigerian Observer*, Saturday, January 14, 1978, p. 16.

<sup>31</sup>Federal Office of Statistics, *Annual Abstract of Statistics*, 1972 - 74.

<sup>32</sup>Federal Office of Statistics, *Ibid.*

<sup>33</sup>Federal Ministry of Education, Lagos, unpublished data, 1977.

<sup>34</sup>Ministry of Information, Port Harcourt, *Rural Development - Rivers State*, 1976, p. 14

<sup>35</sup>Pearson, for instance, postulates that private foreign investment, such as the Nigerian petroleum industry, can result in direct gain to the local economy (other than the direct financial and economic contributions to the public sector) if the operation of the industry that it creates increases the profitability of other domestic industries through intersectoral relationships or linkages. Benefits associated with these linkages would normally result from the occurrence of one or more of three

phenomena - economies of scale, positive externalities and employment of unemployed or underemployed resources. For details see Pearson, S. R., *Ibid*, pp. 45 - 50.

<sup>36</sup>Shell-BP Petroleum Development Company of Nigeria Ltd., *Statement of General Business Principles*, 1977, p. 3.

<sup>37</sup>*African Development*, June 1972, pp. 10 - 11.

<sup>38</sup>The 1969 Petroleum Decree, (*Ibid*), requires all companies to attain at least 75% Indigenization of their manpower, including senior management, within 10 years of their operations. There is so much lee-way in this type of time table that the companies have not complied with it to any great extent.

<sup>39</sup>Field work, 1977.

<sup>40</sup>These figures were released by Mr. Philip Asiodu, former Permanent Secretary to the Ministry of Mines and Power and chief executive of the former Nigerian National Oil Corporation (NNOC) and reported in *African Development*, *ibid*.

<sup>41</sup>Central Bank of Nigeria, *Economic and Financial Review*, vol. 14, No. 1, March 1976, p. 62.

<sup>42</sup>See *African Development*, March 1972, p. N17.

<sup>43</sup>Agoi-Iwe, Rose, "Ughelli - An Oil City That Once Boomed," *The Zaria Geographer*, Ahmadu Bello University, Zaria, vol. 2, 1973, pp. 31 - 35.

<sup>44</sup>Federal Republic of Nigeria, Petroleum Decree, *ibid*, p. B351.

## CHAPTER IV

SOME SOCIAL, ECONOMIC AND POLITICAL PROBLEMS  
OF OIL WEALTH

The unexpected infusion of large amounts of foreign and domestic capital into a relatively underdeveloped economy and society-- particularly when both are least prepared to accommodate this--will inevitably bring about a crop of problems. Nigeria is not unique in this, however. Like most other developing country oil exporters, such as Indonesia and Venezuela, who have found themselves under increasing pressures to resolve a growing list of problems, oil wealth has not been all that favorable. Rural decay and urban congestion, extraordinary inflation, food shortages, price controls, soaring imports, stagnant exports (except oil exports), confusing fiscal policies, credit misuse, robbery with violence and general indiscipline, bribery and corruption, political unrest--these are only a few of a host of growing pains.

Unfortunately for Nigeria, at the time oil revenue started to become important in the late sixties and early seventies, the country was plunged into a succession of military administrations whose attention, and that of the whole country, was preoccupied with fighting a destructive civil war, and soon after the war, with rehabilitation and reconstruction. Thus there was not much opportunity for a public discussion of how the oil revenues should

be spent (unlike the kind of discussion that is going on in Britain regarding the North Sea oil and gas revenues<sup>1</sup>). Should they be spent to increase agricultural and industrial production, to expand the size of the army or to provide public goods and services such as education, health, and basic infrastructure? What fiscal policy measures would be more effective in organizing and utilizing the existing abundant absorptive capacity for increased public revenues, and in a way that would minimize the scourge of a run-away inflation and unbalanced socio-economic growth. In the absence of such debate and advice, many wrong steps were taken and atrocious decisions made concerning how petroleum money would be spent. And the problems created by petroleum wealth have fallen more heavily on the mass of rural and urban poor than on the few rich who organize economic activities in the country.

#### Rural Decay and Growing Urban Problems

There is no national census, not even a reliable estimate, to indicate the extent of post-oil boom population movements in the Rivers State. For this reason, and also to answer some other questions relating to the effects of the oil industry on people before and after migration to the city, we interviewed 300 randomly selected respondents in Port Harcourt.<sup>2</sup>

Table 4.1 shows that rural out-migration to the city is taking place on a large scale, particularly after the civil war when the oil industry took off and relatively more opportunities opened up in it for the indigenes of the state. Before Port Harcourt became the petroleum capital of Nigeria, it was just the second sea port of the

Table 4.1. Origin of Migrants into Port Harcourt by Period of Migration (per cent)\*

Origin of Migrants	Period of Migration			Total of Each Source for the Period
	1965-1969	1970-1974	1975-1977	
Villages with the state	6.88	33.75	11.25	51.88
Other small towns within the state	3.13	16.86	5.63	25.62
Outside the state	1.25	6.87	8.75	16.87
Native of Port Harcourt	5.63	--	--	5.63
	16.89	57.48	25.63	100.00

Source: Field work, 1977.

\* In Tables 4.1, 3, 4 and 5, responses were first tabulated in numerical figures and then presented only in percentages to facilitate comparison.

country at a time when the entire national economy was much less buoyant than today. Most of its active population consisted of the more enterprising Ibos of the erstwhile Eastern Region of Nigeria whose economic domination of the city kept most of the peoples of the present Rivers State (minorities in the Eastern Regional Administration) back in the villages.

The rise of Port Harcourt as an important oil city thus coincided with its other new role as the capital of the Rivers State in which the Ibos were no longer welcome and virtually excluded economically.<sup>3</sup> Consequently, the various peoples of the state moved in considerable numbers from even the remotest rural places into the city in a stampede to occupy property 'abandoned' by the Ibos and to fill in commercial and employment niches vacated.

By the middle of 1977, the population of the city and its immediate suburbs jumped nearly 342 per cent or from 179,563 in 1969 to an estimated figure of 793,611.<sup>4</sup> As our sample survey shows, the rural villages have been contributing most of these city dwellers (51.88%), followed by the smaller towns in the state (see Table 4.2). Until very recently the bulk of the 16.87 per cent from outside the state were drawn from sources other than Iboland and most of these were from the ranks of the armed forces personnel massed in the city and members of their households. The situation of near stagnation--in fact the decline--in the populations of the existing towns shown in Table 4.2, where oil companies' activities are restricted to only temporary field operations, is an indication of the industry's contribution to the attractiveness of Port Harcourt as a center of population shift.

Table 4.2. Populations of Towns of 20,000 and over in the Rivers State: 1969 and 1977.

	<u>1969</u>	<u>1977</u>
Port Harcourt	179,563	793,611
Buguma	100,628	89,246
Abonema	53,261	51,672
Nembe	25,032	NA
Okirika	24,138	26,052
Omoku	20,323	24,396
Bukama	29,592	NA

Sources: 1. Federal Office of Statistics, Lagos, Annual Abstract of Statistics, 1974.  
 2. Ministry of Trade and Economic Development, Port Harcourt, unofficial estimate.

Table 4.3 summarizes the job preferences of our sample survey respondents. A total of 65.01 per cent preferred jobs in the oil companies over any other city employment. This seems to indicate the strength of attraction of the oil industry for city migrants. The fact is that all the international oil companies which hold concessions in the state and its territorial waters have their operational headquarters in the city. The same is true of their service and supply companies. This means that all operations, all contracts, purchases, sales, employment (other than the unskilled, daily-paid wage labor) and other business connected with the industry are based on Port Harcourt. Petroleum products are also refined at the outskirts of the city and distributed from a depot located inside the city to all parts of the country. The tremendous economic activity in the city resulting from huge government expenditure of oil money, as well as the economies of scale and the entire business atmosphere created by the industry, have resulted in a striking industrial and commercial agglomerations in the city (Table 4.3).

Oil wealth is notoriously exhibited publicly in the city by the few who have access to it which further entices rural folk to migrate. Generally, the oil city is regarded as flowing with wealth and opportunities--a place where one must plant oneself in order to escape the drudgery of agricultural and other rural pursuits while at the same time participating in the mainstream of national economy. Thus thousands of rural immigrants keep squeezing into the city and its squalid suburban settlements in search of what they assume will be a better life. Table 4.3 also shows that most of these are unfortunately young school leavers under the illusion that the rich

Table 4.3. Migrants Job Preference by Educational Standard (per cent).

<u>Type of Job Preferred</u>	<u>Educational Qualification</u>			<u>Total</u>
	<u>Primary</u>	<u>Secondary Gram./Tech.</u>	<u>Post Secondary</u>	
Oil company employment	19.38	35.63	10.00	65.01
Civil service employment	0	1.24	4.38	5.62
Other forms of industrial or commercial employ- ment	7.50	8.75	3.75	20.00
Trading/services (self employment)	<u>6.88</u>	<u>1.88</u>	<u>0.61</u>	<u>9.37</u>
	33.76	47.50	18.74	100.00

Source: Field work, 1977.

oil companies have an inexhaustible capacity to absorb all kinds of labor.

In most cases the hopes of immigrants are quickly dashed. The need for workers, greatly expanded by the petroleum sector's stimulation of the economy and the political and administrative positions made possible by the creation of states, is already pretty well satisfied. Anyone who does not have above-average specialized training (which is still the privilege of only a tiny minority) can hope for at best only poorly paid jobs. Sometimes this is not even available so that many become hangers-on in the extended family system or swell the ranks of the growing city marauders.

From the ranks of all immigrants surveyed, only 41.88 per cent had any claim to some form of employment as indicated in Table 4.4. A sizeable 58.12 per cent are visibly unemployed. Even among the employed, there exists some measure of hidden underemployment or marginal employment which our inquiry did not neatly distinguish. We have already pointed out that the capital--intensive and technologically sophisticated oil industry on the aggregate is a very poor employer of labor--a fact which migrants painfully discover only after they have moved and when they must have lost all hope of going back.

The above pull factors have been very significantly abetted by push factors in the villages themselves as the principal motives for migration. In Table 4.5 a total of 36.25 per cent of our respondents identified lack of alternative employment opportunities in the villages and the small towns as the cause of their migration to the city while 14.37 moved for lack of social and welfare facilities in the rural areas.

Table 4.4. Employment Status of Migrants (per cent) by Educational Qualifications.

<u>Employment Status</u>	<u>Educational Qualification</u>			<u>Total</u>
	<u>Primary or Less</u>	<u>Secondary Gram./Tech.</u>	<u>Post Secondary</u>	
Unemployed	31.88	26.24	--	58.12
Employed	22.50	18.13	1.25	41.88
	54.38	44.37	1.25	100.00

Source: Field work, 1977.

Table 4.5. Causes of Migration to the City by Educational Qualification (per cent).

Suggested Causes/ Motives	Educational Qualification			Total
	Primary and Less	Secondary Gram./Tech.	Post Secondary	
Lack of employment opportunity in rural areas	12.50	20.62	3.13	36.25
Prospect of a better paying job in the oil company	20.00	25.00	4.38	49.38
Lack of social and welfare facilities in rural areas	3.12	4.37	6.88	14.37
Just for a change of environment	--	--	--	--
	35.62	49.99	14.39	100.00

Source: Field work, 1977.

By suddenly replacing agriculture, fishing and local crafts as gainful employments in the state, petroleum indirectly fueled the rural-urban movement. From the employment generation standpoint the poor showing of the rural sector thus bred a pool of willing migrants. Also the lopsided investment of the oil revenues to the city's advantage in infrastructural and social service development has become both a cause and consequence of the city-ward migration. As migrants pour into Port Harcourt, the obsolete facilities become seriously overtaxed and the government feels obliged to invest more and more in city services in a futile effort to relieve the pressure. But this simply attracts more migrants. A vicious cycle evolves which works to sustain the depressed nature of rural areas as the source of city immigrants.<sup>5</sup>

For both the receiving city and the rural sources of migration, the process has dealt very devastating blows.

Overcrowding, congestion, shortages and frustrations are the commonest features of the city of Port Harcourt today, involving almost every aspect of city life--housing, transportation, food supply, water, electricity, sanitation, schools and a host of others. Thousands of people who have given up what may well have been a relatively comfortable existence in the countryside are prepared to endure these agonies just to hang on to an inevitably deteriorating city life. Although the city population has galloped from under 200,000 in 1969 to about 800,000 in 1977, infrastructural facilities and housing have remained almost at 1969 levels thus creating one of the worse urban crises in the country after Lagos.

Table 4.6 illustrates one aspect of this crisis--the housing squeeze--in relation to some other Nigerian cities. Warri in particular, until its recent elevation to the role of the second largest oil city in the country, was a very tiny inland river port of 55,254 inhabitants. In 1977 its estimated population was nearly 400,000 and it continues to be the fastest growing city in the country, after Lagos. As a result, its housing shortage is acute. However, as an indication of overcrowding in Port Harcourt, the table shows that as many as 63.1 per cent of households in the city are forced into one room and the average number of persons per room is 3.7 (the corresponding figure in a federal survey in 1970-71 is 2.4).<sup>6</sup> This is indeed an extreme example of overcrowding resulting from rapid urban growth associated with accelerated tempo of economic activity caused by the petroleum industry. Moreover, associated with the shortage of dwelling units in the city are other kinds of congestion problems--malfunctioning of service facilities, high rents, slum and squatter settlements--all visible features of the present city scene.

The everyday chaos of traffic in the unattended streets, especially in the main commercial districts at Mile One Diobu, Aba Road and the downtown area, is indescribable. Especially during the morning and late afternoon rush hours, when government offices, banks and other commercial establishments and industries close, a travel time of one hour by car for a stretch of a little more than one mile is absolutely standard. On rainy days this travel time can double because in the absence of drainage facilities many city streets become flowing streams making access doubly

**Table 4.6. Housing Conditions in Port Harcourt Compared to Other Nigerian Cities.**

<u>Towns</u>	<u>Per Cent of Households Occupying One Room</u>	<u>Average No. of Persons Per Room</u>	<u>Per Cent of Houses with Tap Water</u>	<u>Per Cent of Houses with Flush Toilet</u>	<u>Per Cent of Houses with Electricity</u>
Port Harcourt	63.1	3.7	60.8	15.3	73.2
Lagos	72.5	3.9	71.7	43.5	93.2
Ibadan	47.3	2.1	33.4	25.2	56.1
Ilorin	23.9	1.6	30.7	10.3	28.4
Marri	59.9	2.6	62.4	10.9	89.7

Sources: 1. Federal Office of Statistics (reported in The Third National Development Plan 1975-80, p. 307.

2. Figures for Port Harcourt adjusted on the basis of field work in 1977.

difficult. And there are no alternatives, since the public transportation system must use the same routes, is chronically overcrowded, and its rolling stock is in terrible condition. So people have come to meekly accept the torture of an endless journey to and from work each day as a price to be paid to 'enjoy' the warm and vigorous life of the city.

Rural out-migration has not only severely depleted rural population, more importantly, it has meant the withdrawal of the younger elements of that society from the rural agricultural labor force. A rural household survey between 1974 and 1975 by the Federal Office of Statistics, Lagos, shows that, in the country as a whole, the number of rural persons per household has been declining but more rapidly among Rivers State communities. Also people between 15 and 30 years of age have left their rural homes more in this state than the national average--by as much as 15.6 per cent.<sup>7</sup>

The depressed state of the rural areas, with their low incomes, empty houses and general state of inertia, is therefore not surprising, since rural economic activities are now left in the hands of the elderly, less productive and less dynamic members. Even in the case of a few areas such as Ikwerre where, because of the high density of rural population, migration to the city can be said to relieve the pressure on land, it is still the younger and most productive people who migrate. Such quantitative and qualitative reductions from the pool of agricultural labor are to a large extent responsible for the poor performance of agriculture and the inevitable food shortages and hunger that follow.

In sum, rural depopulation and migration to the city are some of the most pressing problems of today that need immediate solution.

But it must be emphasized that these problems were already noticeable both in the Rivers State and elsewhere in the country long before the advent of the real oil boom. However, the unprecedented economic growth and prosperity that have occurred in recent years as a result of the influx of vast oil revenues have more than ever before accelerated the movement out of the neglected and decaying rural places to the cities, where the benefits of oil wealth can at least be seen if not experienced. There can be no solution to the problem until a new approach to economic and social development is adopted--one which emphasizes a deliberate and integrated public rural development program, not just as a means of reviving the rural sector's contributions to gross domestic productivity, but purposely for reducing the present level of disparities between urban and rural communities.

#### The Oil Economy and Inflation

To paraphrase Guy Arnold again, oil wealth is ensuring that inflation in Nigeria remains among the highest in the world.<sup>8</sup> It would seem that, inevitably, hyper-inflation is the bugbear of an oil economy. In Venezuela, for instance, inflation was reported in 1977 to be running in excess of 20 per cent, mainly in response to the influx of large oil revenues which led to profilgate spending and an import spree.<sup>9</sup> In Indonesia, for the same and other reasons which included the burden of accumulated foreign debts and widespread corruption, inflation, which reached a crushing 600 per cent mark during the final days of Sukarno in 1965, now persists at an annual rate of 14 per cent.<sup>10</sup> According to a Central Bank of Nigeria monthly

report the annual average rate of inflation in the country was only 2.8 per cent in 1972 at the eve of the oil boom, but this officially soared to 33.5 per cent in 1974 when crude price increases alone led to the greatest money influx into the country.<sup>11</sup> (Unofficial sources report an inflation rate in excess of 200 per cent then.)

It is difficult to come up with precise measures of the proportion of the present inflationary tendencies in Nigeria directly attributable to petroleum, or to segregate that made possible by the revenues from petroleum from that which would have occurred anyway in spite of petroleum, since inflation is part of a global current that is affecting all countries, both rich and poor, whether they export oil or not. It is certain, however, that the relative abundance of financial resources in the hands of inexperienced, and at times corruptible, officials has led to all kinds of misallocations and extravagances which have overheated the economy. As a result, the rapidly increased purchasing power of a new class of Nigerians, who have risen to prominence as businessmen, management personnel and contract men for the numerous projects that are scheduled all at a time, has brought an incalculable expansion in the demand for imported consumer goods and luxury items and saddled the country with a rate of inflation (presently over 40 per cent on the average) which may well turn the "oil boom into oil doom."<sup>12</sup>

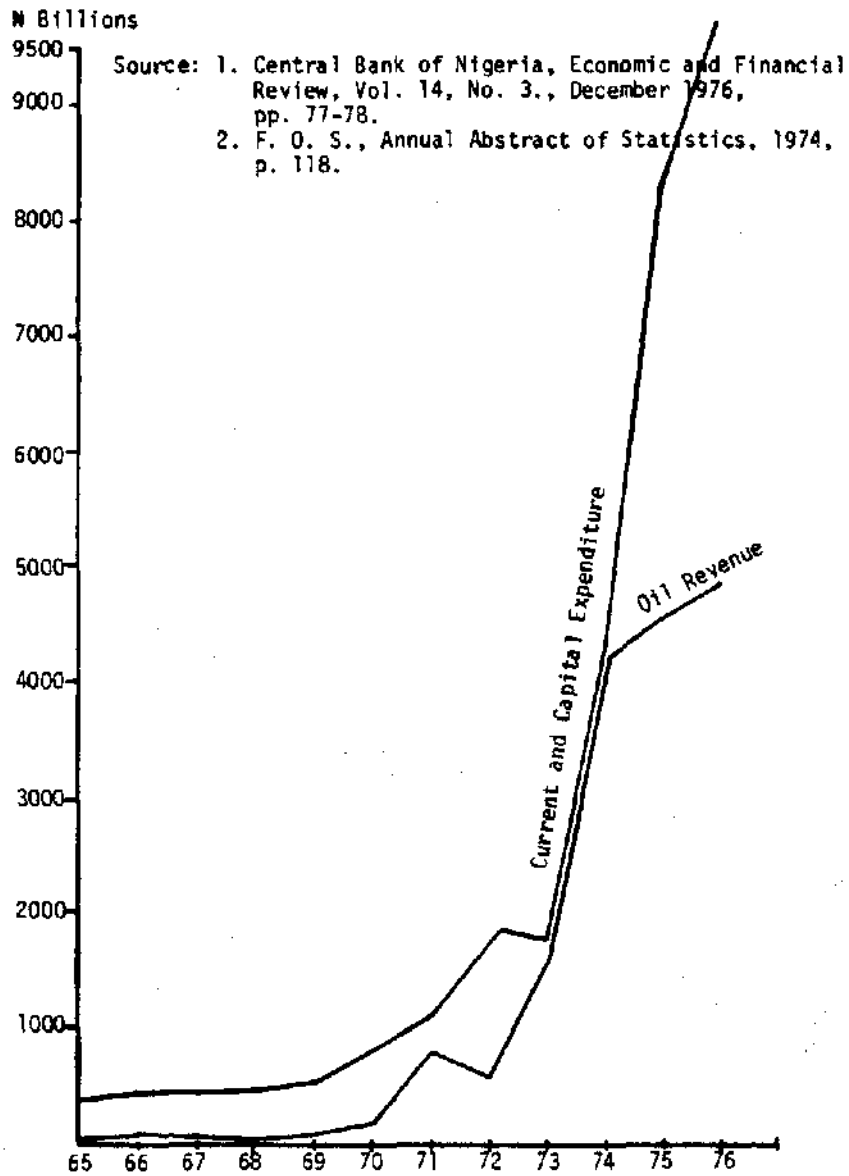
There is no need here to summarize conflicting economic theories of inflation to determine how they apply to Nigeria. But several ingredients of both the demand-pull and the cost-push theories have been generated by the oil economy.

Both Table 2.7 and 2.8 of Chapter 2 clearly demonstrate not only the total dominance of the economy by petroleum-related payments,

but also the phenomenal growth of these payments over a short interval. Federal current revenues grew from N154.6 million in 1958, of which petroleum accounted for only 0.08 per cent, to over N7.7 billion in the 1977/78 financial year with petroleum responsible for over 85 per cent of that--a revenue increase of 4,850 per cent. In terms of foreign exchange alone, petroleum also provided 93 per cent of the country's earnings. The aggregate national share of the oil industry's product (Table 2.9) accounted for 3.86 per cent of the Gross Domestic Product in the 1965/66 fiscal year, 45.5 per cent in 1974/75 and 44.4 per cent in the 1976/66 period. Given these relationships, assuming that most of the national share entered the national income stream, and abstracting further from multiplier effects, the following conclusions can be reached regarding the effects and contributions of oil wealth to the current inflation:

1. The enormous increase in government revenue has correspondingly increased its spending power leading to a number of unsound and inefficient fiscal policies that fuel inflation--reckless domestic overexpenditure, import boom, even deficit spending and so on.<sup>13</sup> Figure 4.1 shows the relationship between government combined current and capital expenditure and its revenues from oil over the period from 1965 to 1976. It is clear from this that both increased very significantly from 1973 when oil prices increased sharply, but more significantly, oil revenue very closely matched combined expenditure, especially in 1974 when government expenditure increased 504 per cent over the 1970 level. Officially, inflation rate which was only 2.8 per cent in 1972 reached over 35 per cent in the same year.

FIG. 4.1. RELATIONSHIP BETWEEN OIL REVENUES AND NATIONAL EXPENDITURE.



The wide gap we notice in this figure between oil revenue and expenditure from 1974 upward, rather than representing increases in other sources of government income, is an indication of the level of deficit financing based on the prospect of a continuous oil revenue increase which was expected to come from the combined effects of volume increase and price escalations. It is significant to note here that the N43 billion revised 5-year Development Plan which has provided more inflationary than anything was envisaged to be 100 per cent internally financed on calculations of an average oil production rate of 3 million bpd at over US \$15 pb. posted price. Thus one of the main causes of the severe inflation of today is excessive government spending which creates excessive demand.

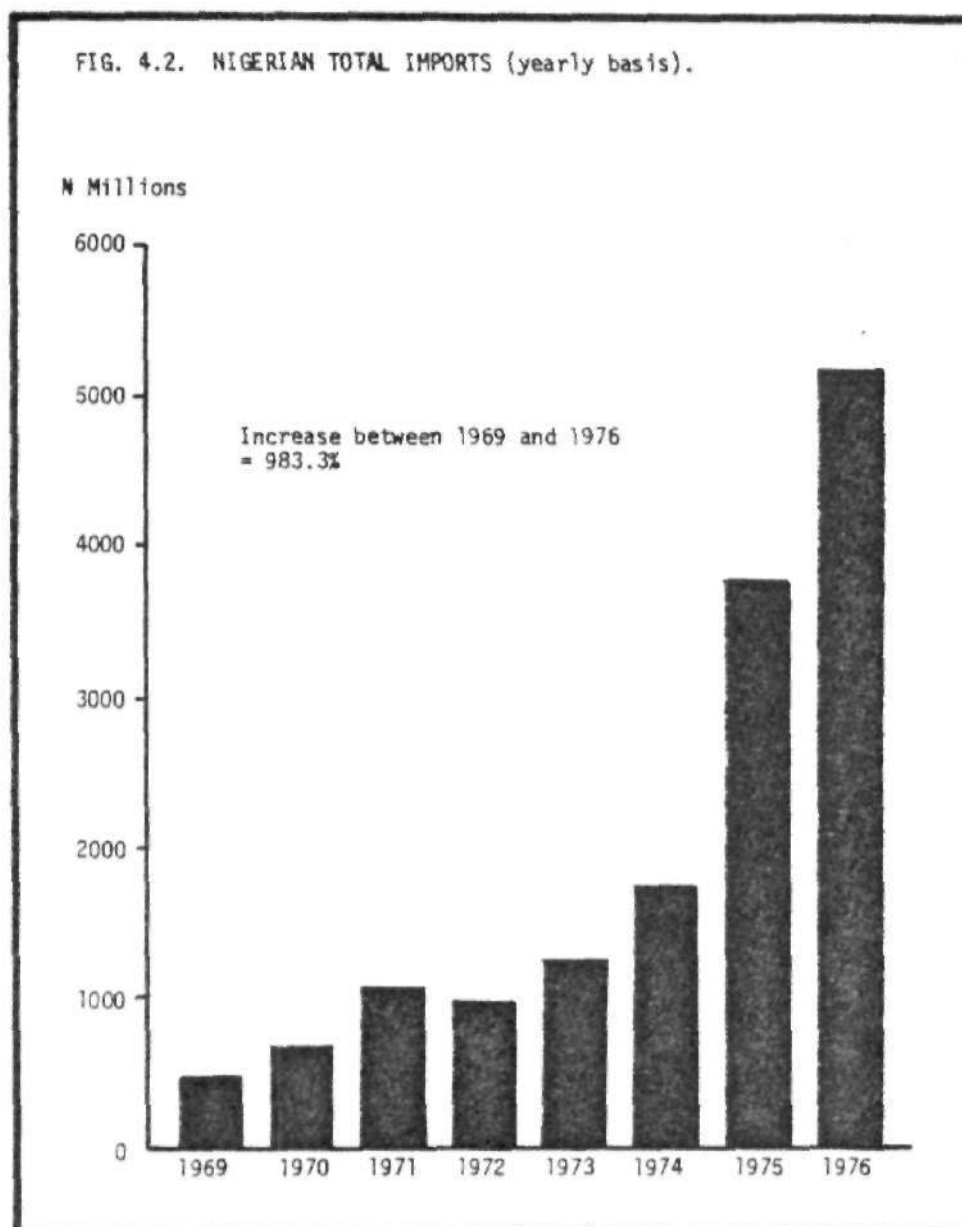
2. The increase in aggregate demand which results from excessive government expenditure and other fiscal policies, which will be examined shortly, are not matched by a comparable increase in aggregate supply so that the price inflation of today has been caused largely by the pull of demand.<sup>14</sup>

We pointed out in Chapter 3 that one of the sad notes of the oil industry is the fact that the sense of complacency generated by its fast and easy revenues has diverted attention from sound and objective agricultural and industrial developments. At 1962 factor costs, agriculture--including livestock, forestry and fishing--was responsible for 63.5 per cent of the GDP while manufacturing accounted for only 4.58 per cent.<sup>15</sup> In 1977 the corresponding figures were 21.0 per cent and 6.3 per cent respectively.<sup>16</sup> Even making allowance for the increasing proportion of the petroleum sector's contribution, it is evident from this that while agricultural production has declined very drastically, industrial output has either

stagnated or increased only marginally. The value of agricultural contribution is even misleading in view of the fact that it is dominated by export crops. If considered in terms of domestic food crops (for which data have never been documented) the picture becomes more bleak.

Therefore neither food items nor manufactured consumer products has kept pace with the tremendous increase in demand generated by the economic impacts of the oil boom. The combined effects of the infusion of too much money into an economic system that is terribly hampered by serious underproduction of food and other consumer goods have created a situation in which too much money is chasing too few goods. The economy thus suffers from an inflationary gap (measured at existing price levels by the excess of the value of aggregate expenditure over aggregate value of production) which implies that in the economy, more is being bought than is being produced. The larger is the inflationary gap, as a proportion of the national income, the steeper will be the subsequent rise in prices.

3. The friction that developed from the gap between domestic underproduction and increased demand, sometimes bordering on open crisis, pushed the authorities to allow virtually unrestricted imports, at least until late 1978. This was firmly established when the government took the decision in the budget to 'halt inflation by increasing the quantity of goods available on the local market'. Restrictions were lifted on most commodities and imports rose over a whole range of goods as local industry lost its protection and could not compete. As Figure 4.2 shows, total imports rose significantly (faster than exports) from 1971 in an effort to close the gap between demand and production.



Sources: 1. Central Bank of Nigeria, Economic and Financial Review, Vol. 14, No. 3, December 1976, p. 53.  
2. Federal Office of Statistics - Nigeria Summary, Lagos, 1976.

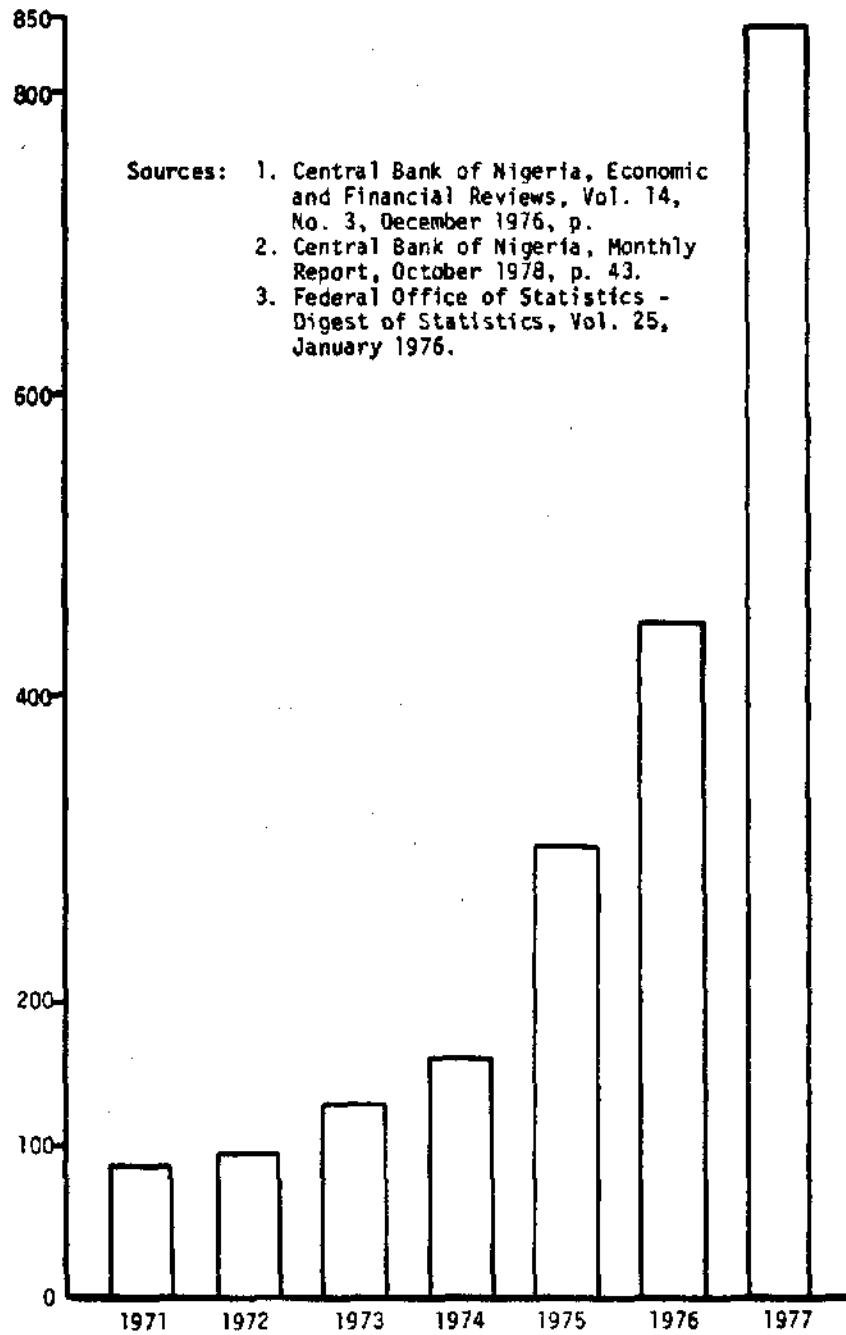
This policy turned Nigeria immediately into a dumping ground for all kinds of consumer commodities coming from the industrial countries. Although food imports led the way (Fig. 4.3), particularly rice, grain flour, sugar and dairy from the United States and frozen beef and chicken from North and South America, the most damage was done by the large importations of expensive luxury items and exotic products to suit the taste of the few newly affluent.

For instance, there was such an influx of expensive German Mercedes Benz cars and Swedish Volvos, as well as Japanese cars, that the narrow streets in most cities became clogged up and it became necessary to impose restrictions on the number of cars that may ply the streets in some cities in the day or on weekends. Lace cloth of ₦100 (US \$160) per meter was imported in such quantity that one would have thought that the people needed it to sustain their very existence. French Champaign, selling locally at the equivalent of over US \$28 per pint bottle, flowed in the endless social parties as if it were free water from the Lagos lagoon.

The state, too, often acted as if nothing could be too splendid and expensive for its tastes. To insure completion of new satellite villages, hotels, theatres, pavilions and other facilities for holding the second World Black and African Festivals of Arts and Culture (FESTAC) in 1997 and World Trade Fair in 1978, the European construction firms hired to execute these projects received *carte blanche*, regardless of cost, to import all equipment and materials required, down to the last sack of cement or even timber.<sup>17</sup>

Such an uncontrolled import boom exacerbated the inflationary spiral in a number of ways. First inflation was imported into the Nigerian economy from the industrial countries. The international

FIG. 4.3. FOOD IMPORTS INTO NIGERIA (N millions).



monetary system had been seriously disturbed by the successive currency crises in many industrial countries, some of which are said to relate to higher oil prices. The floating of many currencies of Nigeria's trading partners because of these crises, resulted in higher import prices for imports from those countries. Second, in the euphoria and confusion of the oil boom, the foreign firms, who as of necessity indulged in bribery and corruption (of local officials) in order to compete in the booming business, manipulated the market so that their products sold from 25 to 55 per cent higher in Nigeria than in any other African country.<sup>18</sup> It was a most ingenious way of recycling the petrodollars.

The import boom caused an unprecedented port congestion which contributed seriously to the course of inflation. This congestion caused considerable delay in turn-round of ocean, road and rail traffic to the ports and in off-loading incoming ships. These facilities were simply not designed for, nor were they upgraded to cope with, the tremendous economic boom that oil wealth made possible. Thus the ports were constantly clogged with the armada of ships that lined up at the high seas waiting for berth, sometimes for up to 4 months. During this period, the country continued to pay heavy demurrage on the ships, which was eventually passed on to the consumer. Because of the congestion, essential commodities did not get to the market in time. In the interim, unscrupulous firms and business people conspired to hoard what was available to create further artificial scarcity which enabled them to reap windfall profits. In spite of huge petroleum accounts, foreign exchange has become seriously depleted on account of the huge imports and excessive foreign spending abroad, leading to constant devaluations of the

Naira. Such currency devaluations worsen the inflationary tendency by making foreign imports more expensive.

The civil war forced the government to recruit and maintain the largest army in Black Africa. After the crisis in 1970, the quick revival of the oil industry at that opportune time following another Middle East crisis, encouraged the military administration to postpone trimming the size of the army to the peacetime needs of the country. Today one of Nigeria's intractable problems is to contain the extremely high level of unproductive military expenditure involved in supporting 350,000 men under arms.

Defense expenditure is by far the largest item in the federal capital budget, standing at ₦3.326 billion (about US \$5.4 billion) or 10.3 per cent of the total capital expenditure for the 1970-80 plan period.<sup>19</sup> On current expenditure, defense spending is even more pronounced. Of outlays totaling ₦1,960 million for the 1977-78 fiscal year, the federal government allocated ₦877 million or 47.72 per cent to the Ministry of Defense.

In an effort to raise or at least maintain the standard of living of workers, consistent with apparent national prosperity, the federal government granted wage and salary increases in 1972 and in 1974. These proved to be the occasion for unprecedented price escalation in the country which hurt the mass of unemployed peasants and others most severely.

The basic assumption underlying both the Adebo and Udoji Commissions' wage and salary awards was that they would serve as an incentive to higher productivity and thereby contribute to lowering inflation. But the agricultural sector, which needed the most incentive and stimulation and which engaged about 80 per cent of

the population, was left out because the generous awards were limited to public employees and later to employees in private industries. However, the assumption turned out to be false--no one was motivated; rather the awards boosted inflation, especially by creating more demand for foreign imports.

Wage and salary reviews have a veritable 'announcement effect' on the price levels in Nigeria. There is always the attempt by those not covered by wage awards--artisans and self-employed--to raise their own income levels almost automatically by raising the prices of goods and services which they offer. Thus at the mere mention of the possibility of government acceptance of the Udoji Commission's recommendations, market women and traders, taxi drivers, tailors, anybody who had any good or service to offer, even the large expatriate mercantile firms, all adjusted and marked up prices even before workers got the awards. The awards ranged from 40 per cent annual increase for workers at the upper salary structure to over 200 per cent for junior and intermediate ones. These were made retro-active for 9 months so that arrears accumulated for everybody. When these were unleashed in the market, the impact proved more devastating than government had bargained for. According to a Central Bank monitoring, the consumer price index for most essential commodities jumped by more than 200 per cent in most cases.

#### Inflation in the Rivers State

It was necessary for us to analyze in some detail the forces and agencies that interact with the abundant oil wealth to produce the unusual inflation that ravages all parts of Nigeria. This will then

place our specific measurements and application to some of the Rivers State communities in the national context.

The inflationary spiral in the Rivers State, represented by cost of living indices and price statistics, hits the rural populations and lower-paid urban workers much harder than the few at the top. The minimum wage in the state, approved by the Udoji Commission, and which must be earned by the vast majority of the working population, is only 5 per cent of the salary of a Permanent Secretary or 3.8 per cent of an army Brigadier. But the reality of life either in the derelict villages or the urban slums is not reflected in any official figures regarding the movement of prices.

The plight of these low-wage earners is connected with many other phenomena. For instance, the unsatisfactory payments to farmers by marketing boards, which caused real incomes in rural areas to drop considerably for over 15 years, has increased the drift to towns, putting new pressures on the housing and social facilities while diminishing the food production on which the cost of living depends. Also the poor transport network in the state generally adds a special dimension to the inflationary trend. For instance, in August 1977, while a bag of cement sold at ₦4.50 at Port Harcourt, the price was ₦8.60 at Bori partly on account of distribution bottlenecks.

Table 4.7 is the summary of our survey in 1977 of the market situation based on a number of items which were in constant demand by the lower income group of Port Harcourt city and nearby villages. This is a group we felt bore the brunt of the petroleum inflation, although it is likely that the pressure is even more severe in remote communities.

Table 4.7. Composite Consumer Price Indices: Lower Income Group—Port Harcourt and Surrounding Villages (base average 1960 = 100).

Items	1977				Per Cent Change Between		
	March (1)	June (2)	September (3)	December (4)	(1) & (2) (5)	(2) & (3) (6)	(3) & (4) (7)
All items	382.5	427.2	442.0	471.5	+ 11.7	+ 3.5	+ 6.7
Accommodation	146.2	150.5	106.8	168.5	+ 3.0	+ 10.8	+ 1.1
Clothing	395.7	403.5	441.2	479.0	+ 2.0	+ 9.4	+ 8.6
Drinks	294.1	316.7	335.6	407.2	+ 7.7	+ 6.0	+ 21.3
Food	521.6	605.0	629.5	670.9	+ 16.0	+ 4.1	+ 6.6
Fuel and light	327.9	344.1	332.0	333.9	+ 5.0	- 3.5	+ 0.6
Tobacco and kolanut	180.4	193.8	194.6	214.4	+ 7.4	+ 0.4	+ 10.2
Transport	251.8	245.2	246.4	268.3	- 2.6	+ 0.5	+ 8.9
Miscellaneous purchases	306.2	322.1	318.2	313.1	+ 5.2	- 1.2	- 1.6
Miscellaneous services	246.0	280.1	272.8	288.3	+ 13.9	- 2.6	+ 5.7

Sources: 1. Field survey, 1977.

2. Ministry of Trade and Economic Development: Statistics Division, Port Harcourt—unpublished data on market prices, 1970-77.

Among the consumer items examined, food had the highest annual average price increase so that at the end of 1977 the food price index was nearly 600 per cent higher than in 1960, in spite of the massive food imports. The relatively lower increases in the housing index does not truly indicate the seriousness of the housing crisis. This is because the expanding squatter settlements at the outskirts of the city have siphoned off much of the excess demand.

Ironically, fuel and lighting indices were persistently high, reflecting acute shortages of petroleum products that have constantly plagued energy-rich Nigerian since 1974. The shortages have sometimes caused near riots at filling stations, where lines of vehicles queued for days and the military operated the pumps inconsistently. The explosive import of cars into the country, in addition to the economic expansion that has occurred in the wake of the oil boom, have both made heavy demands upon home refining greatly outstripping its capacity. The only refinery at Port Harcourt then was a very small one which, even on completion in 1965, could only produce about 50 per cent of domestic consumption. In addition, Port congestion and inadequate handling facilities delayed the landing of imported refined products.<sup>20</sup>

By November 1974, consumption had reached 114.3 million liters while domestic refining output totalled only 61.9 million liters, leaving the balance to be imported. The hopeless transport condition between Port Harcourt and its regional hinterland as well as between it and the rest of the country has further constrained the distribution of refined products. Angry Nigerians have become embittered of a government that could not organize a proper distribution to its

own people of their modest total consumption of 2 million tons of oil products a year at a time when the country was pumping in excess of 100 million tons.

The most striking features of Table 4.7 are not only that the price indices for all items climbed very high over the 1960 base average, thus providing an indication of the general rate of inflation, and that food prices in particular--the one which hurt the poor most--were outrageously inflated. But also, prices escalated dangerously from one quarter to another in the year as demonstrated in columns (5), (6), and (7). The index of all items increased 11.7 per cent between the first and second quarters, 3.5 per cent between the second and third quarters and 6.7 per cent between the third and final quarters of the year. This was due mainly to the negative repercussions of government's effort to force stable and low prices.

In 1972, as the inflationary tendency began to worsen, and was unscrupulously exploited all across private industry and business, the federal government decided to intervene by instituting Price Control Boards in all the states, with jurisdiction over a wide range of consumer items including housing. It soon became obvious that you could not control effectively the prices of things when they were hopelessly in such short supply. The National Supply Company was therefore established, as an extension of the price control mechanism, with substantial capital investment and authority to import almost any item in any quantity to defeat both natural and contrived scarcities that existed.

Price controls are difficult to work even under the best of circumstances, let alone those of the Rivers State or Nigeria

generally, where most of the retail business is in the hands of thousands of small market traders who may be as much victims of greed of the larger distributors as the public to which they cater. So all that price control effort succeeded in doing was to drive those diehards more and more into hoarding and profiteering. The Supply Company was totally ineffective--most of its imports stood endlessly outside the congested ports and some rotted. The little that landed was immediately taken in by the privilege few. Nigerians criticized the Price Control Board for its inefficiency and corruption. But the more the Board tried to tighten up control, the more business people drove prices higher through hoarding and profiteering.

The issue of inflated housing rent in Port Harcourt illustrates the lack of foresight in government policies and action. There was a plethora of rent control boards and rent tribunals, but those drove landlords into an underground league which caused renters more harm than good. However, the problem of high rent in that city was only partly a problem of profiteering by landlords. The rising cost of building material was not taken into account, nor the force of urban land scarcity. Trying to control rent without increasing the stock of rentable property through effective public housing projects; without controlling urban land prices, and without really alleviating the pressure or rural-urban drift through imaginative development programs for the rural areas, is surely meaningless.

Other deliberate government actions added substantially to the high cost of living indices that we observed in Table 4.7. Since 1972, postal services have gone up three times for a total of over 65 per cent. Electricity increased 108 per cent from the

1965 level and water rates by as much as 49 per cent. These are all public monopoly utilities. The state's own public transport service raised all fares by 100 per cent in 1977 against public protest. These increases had the effect not only of depressing real income and adding to the inflationary prices, but also of encouraging private businesses and the market to do the same.

### Boom Creates Indiscipline and Chaotic Social Pressures

Other negative externalities that tend to nullify the economic advantages of vast oil wealth in Nigeria include class indiscipline, corruption, robbery with violence and a host of other social deviations. Again it is not an easy task to measure precisely how many of these undesirable behaviors have been caused directly by oil. These vices were not unheard of among the pre-oil boom Nigerian societies, but their sudden escalation into the recent crisis proportions is the natural consequence of the gigantic and chaotic economic expansion that petroleum has made possible, usually as a result of attempts by members of the society to gain greater control over the benefits associated with the petroleum proceeds.

In a sense, it does not appear necessary to discuss these problems separately since we have already encountered much of their evidence in our economic and social analysis so far. Therefore we will only summarize the main features of the driving force behind these social evils.

The oil bonanza caught Nigeria by surprise--no one planned for an oil boom economy, but it came anyway. Our observations of the Rivers State showed the people and government behaving as if there

were a surfeit of money, development and new business and they were incapable of absorbing the effects of all the activities that were going on. In consequence the society became wide open to a range of abuses that could be exceptionally difficult to curb.

For a majority of the people, however, the cost of living soared at the same time that unemployment (excluding underemployment) reached 27 per cent.<sup>21</sup> Poverty everywhere existed in juxtaposition to great wealth and the few who made quick and sometimes spectacular fortunes displayed them brazenly. More than at any other time social values became too obviously related to the possession of material wealth and traditional and legal sanctions against such crimes as robbery and corruption gave way to the new craze to get rich quick. These conditions inevitably led to the wave of indiscipline, armed robbery and corruption so rampant in the state today.

For any regime that intends to cut out corruption, public accountability is very essential. This is not the case in the situation we are dealing with. In the absence of court convictions or incriminating tribunal reports there is no safe and printable evidence to indicate the extent of the problem.<sup>22</sup> But almost everyday corruption if publicly denounced by everybody including top government officials and chief executives of state corporations who themselves live in a style that they could not possibly sustain on their legitimate salaries. Situations like these all over the country made the leader of the federal government in 1977 declare that:

I have noted with some sadness, that we have tended to live and display consumption patterns which are grossly out of tune with our level of development and national aspirations. Our public and individual lifestyles give a sense of false values to our youths and are contributing in no small measure to the social ills which are again becoming prevalent in our society today.<sup>23</sup>

The social ills which must have been uppermost in his mind were indiscipline in schools and public life, as well as uncontrollable armed robbery. The newly rich lived and conducted themselves as if they were above the law and the rest of society and did so with impunity. To get rich quickly most children left schools at both primary and secondary levels and those who remained would hardly take orders anymore from their teachers, who traditionally have been among the most poorly paid classes of workers in the country.

At first the wave of armed robberies which ravaged the country was blamed on the spill-over effects of the civil war which not only trained many civilians in the art of firing and manipulating guns, but also left them with large supplies of arms and ammunitions. But it soon became clear that some elements within the rank of those who had no other form of access to the maldistributed petroleum wealth would kill and maim for it. A state of emergency was proclaimed in the Rivers State in 1977 when robbery with violence became most threatening. Some of the restrictions imposed on movements affected economic activities seriously and further increased inflationary tendencies for the communities.

#### The Politics of Nigerian Oil

As long as oil remains the key to the present economic and political strength of Nigeria, it becomes necessary in a study of this nature to examine its domestic political implications. As Pearson has already pointed out, it was not until 1964, following several years of initial discovery and production, that oil started

to enter prominently into political calculations, and that potential economic benefits that could derive from it were crucial to the civil crises two years later that threatened to break up the federation.<sup>24</sup> Although these observations may be substantially accurate and relevant to a number of contemporary problems, our analysis here will be limited to the nature of frictions caused by present misunderstandings and efforts to resolve them.

One of the toughest political tests which modern Nigeria has to grapple with concerns how best to allocate oil revenues 'equitably' to all the states and what proportion of it the Central Government should keep to itself. People in the oil states openly resent seeing what they consider to be their wealth taken for use in other parts of the country. They often charge--and with justification--that in terms of infrastructural development and general economic growth, the bulk of the oil wealth has been invested to the overwhelming advantage of regions far away from the oil fields. Public expressions of these grievances and emotions have not only made headlines in some of the national dailies but also loomed large in the deliberations of the National Constituent Assembly, the first and the highest democratically elected body for eleven years, which met in Lagos in 1977 to 1978 to debate and approve a draft constitution for the return of the country to civil rule in 1979.

A member of the Assembly, Mr. S. A. Ubani-Ukoma from the Cross River State (an oil state) complained loudly on the floor of the Assembly that:

What I am saying is that those oil producing areas have been neglected for a long time and if justice is to be done in this country, these areas should be given more consideration in the allocation of revenue. This is very important because to our

surprise now we come to realize that those areas that produce oil watch and see oil flow underneath and we see oil in areas which have no oil underneath.<sup>25</sup>

Another member, Mr. R. B. Adewunmi from Lagos State (non-oil state), agreeing that such justice has actually not been done said:

On the question of revenue allocation which we find in Section 138 on the Draft Constitution, my view is that (and I am speaking out of conscience) any revenue allocation for this country must be weighted in favor of derivation. I do not come from an oil producing area and the cocoa which used to be produced in my area can no longer be produced now in sufficient quantities to satisfy even the mills at Ikeja. But I believe and truthfully too, that it provokes anger and disaffection for a person to see his environment despoiled and sometimes even vandalized, as you find in oil producing areas, without any corresponding benefits materially given to him to temper the harshness and the cruelty of the event.<sup>26</sup>

Let these two examples suffice to show how much the problem has engaged national attention and recently provoked public debate.

The constant controversy over an acceptable principle of revenue sharing among the component members of the Nigerian Federation has an interesting historical perspective that is worth brief examination here. During the process of colonial political devolution, Nigeria imported, and for the most part tried to retain, the main features of classical federalism, which emphasized the rights and independence of constituent units in the use of fiscal policy instruments. This has partly created the present problems of sharing of centrally collected revenues and inter-governmental fiscal jurisdiction.

On independence in 1960, the country inherited from colonial administration three basic principles of central revenue sharing. These were the principle of derivation (as a result of which a certain proportion of a particular revenue went to the region of origin)

the principle of independent revenue, and the principle of need and national interest. At that time there were only three regions-- the Northern Region which alone comprised four-fifths of the country, Eastern and Western Regions--with differing levels of natural resource endowment, cultural groups and development needs.

Of these three principles, greatest emphasis was given to the principle of derivation in the early 1950's and early 1960's, supported principally by the Western region which produced all the cocoa exported from Nigeria. Cocoa was then the main source of national income. During the early 1960's, however, cocoa was toppled in the so-called world market and groundnuts (peanuts) and cotton, produced in the Northern Region, became the mainstay of the economy. The North then embraced the derivation principle while the West turned round to team with the East to oppose it in favor of the principle of need and national interest. However, the new constitutional amendment of 1957-58 coincided with the emergence of crude petroleum as a potential source of revenue for the country. Then the East suddenly turned round to favor the derivation principle while the other regions, who had at one time or another supported it objected.

In other words, each region had tended to emphasize whichever principle gave it maximum advantage in relation to others. The resulting revenue sharing formula, nevertheless, assigned 50 per cent of revenue to the region of origin, 30 per cent to the Central Government and 20 per cent to the newly introduced Distribution Pool Account (DPA) which was to be allocated to the regions mainly on the basis of population. This has long proved to be the cause of much political controversy and census manipulations that will be examined

shortly.

No civilian administration of the immediate post-colonial era was in a strong enough political position to have altered this colonially imposed albatross. Only a military government could do so. First in 1967, the military government created 12 states out of the former 3 regions. These were subsequently increased to 19 states in 1976. This political exercise inevitably necessitated new arrangements regarding revenue sharing. Revenues from oil were becoming very large and 50 per cent of these to the few oil states according to the derivation principle would have given them too much financial advantage over the rest. Besides it was felt that to prevent the kind of financial and political strength which the previous arrangements allowed the regions, it would be expedient for the Federal Military Government to strengthen and consolidate its own position vis-a-vis the states through measures of stringent revenue control and allocation, while at the same time preserving, even if nominally, some characteristics of the federal constitution.

Therefore the Federal Military Government passed a number of decrees which altered all existing revenue-sharing arrangements, particularly in regard to the crucial issue of oil wealth, with the aim of drastically lowering the percentage that formerly went to the producer states.

Decree No. 13 of 1970 and Decree No. 9 of 1971 essentially transferred rents and royalties of off-shore petroleum from the producer states to the Federal Government. Decree No. 6 of 1975 introduced yet a major rearrangement of revenue sharing as a result of which the DPA at the Central Government's disposal was considerably increased. Eighty per cent of onshore oil rents and

and royalties would go to the DPA while only 20 per cent, as opposed to 45 percent previously, would go to the states of origin. Also, 100 per cent of off-shore oil rents and royalties that had previously been retained by the center would henceforth go into the DPA. Most other taxes, such as import and export duties, excise duties, oil pipeline dues, etc., would be shared by both the DPA and the Central Government.

The Distributable Pool Account, which thus became the most powerful instrument of central financial control, would be shared 50 per cent by population and 50 per cent equally distributed among states in the federation. The immediate effects of these new arrangements are shown in Table 2.8 where (1) petroleum related payments have come to dominate federal income; (2) the states are not only increasingly dependent on financial appropriations from the Central Government but are also much inferior in absolute terms.

What are the general effects of these constant revenue sharing contentions? Before discussing this, let us quickly point out that there are two distinct levels of concern and frustration about the political implications of the present petroleum revenue sharing formula.

All of our interviewees in the Rivers State were dissatisfied with the present arrangements for the distribution of oil benefits. But only 37.9 per cent of these were particularly worried about geographic or regional inequality, by which they meant that the Rivers State government should have been entitled to more statutory allocations from the Central Government than other states on account of its number one position in oil production. These represented the elite group in government and business who stand to benefit from increased state government revenue and spending.

**Table 4.8. Census Comparisons: Nigerian Twelve States, 1953-1973.**

States	Censal Periods (millions)			Per Cent Difference Between	
	1952/53	1963	1973*	(1) & (2)	(2) & (3)
	(1)	(2)	(3)		
Benue Plateau	2.3	4.10	5.2	+ 78.26	+ 26.83
East Central	4.57	7.23	8.1	+ 58.21	+ 12.03
Kano	3.4	5.77	10.9	+ 69.71	+ 88.91
Kwara	1.2	2.40	4.6	+100.00	+ 91.67
Lagos	0.5	1.45	2.5	+190.00	+ 72.41
Mid Western	1.5	2.54	3.2	+ 69.33	+ 29.98
North Central	2.4	4.10	6.8	+ 70.83	+ 65.85
North Eastern	4.6	7.80	15.4	+ 69.57	+ 97.44
North Western	3.4	5.73	8.5	+ 68.53	+ 48.34
Rivers	0.75	1.55	2.2	+106.67	+ 41.94
South Eastern	1.9	3.62	3.5	+ 90.53	- 3.31
Western	4.35	9.50	8.9	+118.39	- 6.32
Republic of Nigeria	30.85	55.70	79.8	+ 80.43	- 43.27

\*Provisional figures.

Sources: 1. Federal Office of Statistics, Annual Abstract of Statistics, 1974.

2. Federal Ministry of Information, unpublished provisional figures.

On the other hand, the other 62.1 per cent, representing the underprivileged masses were, particularly worried that neither the federal nor state governments have been fair to the vast majority of them in distributing the benefits of oil. They were not particularly interested in which government gets the most of the revenues--all they wanted was their own share of it in the form of modern infrastructures and improved services. These disgruntled majorities can be politically explosive, particularly at the end of the present state of emergency.

The present distribution of central revenue in Nigeria today (86 per cent of which comes from petroleum), which is weighted heavily in favor of population numbers, is largely responsible for the fact that nobody really knows how many Nigerians there are, because the states deliberately inflate actual census returns, or rig the process in a number of other ways. One of the cardinal problems of objective social and economic planning in the country is this absence of a reliable and accurate information and data regarding the population for whom development is desired.

Table 4.8 at once tells the whole story of the population incident in the 12 states of Nigeria by 1973 when the last futile census attempt was made. Between 1953 and 1963 period, some of the states recorded an increase of near and above 100 per cent--Kwara State 100 per cent, Lagos State 190 per cent,<sup>27</sup> North Western State 106 per cent, Western State 118 per cent and so on. On average annual basis, these rates of increases are generally well over 10 per cent although the national rate of demographic growth, measured by the United Nations, is 2.8 per cent. These rates of increases have no parallels anywhere in the world.

The same trend was repeated in the provisional figures for 1973 in which Kano States, Kwara and North Eastern states almost doubled their numbers within ten years. Since there were no evidences in the Western and South Eastern states of any reversal in demographic trends, their declining figures can at best be seen as evidence of previous falsification, particularly since there were mutual accusations of artificial ballooning of field returns in 1973.

The political controversy generated by these figures, especially the supposed concentration of 51.4 million people or 64.41 per cent of Nigerians in the former Northern region, was too much for the others to stand and so the figures remained provisional for two years until they were finally abrogated in 1975 by a new military regime. By implication it would have meant that 64.41 per cent of the national wealth (mainly from oil) would stay in the north. This is why 'politicians' from the oil states, with some help from others outside the oil states, are charging economic exploitation and the creation of an enclave economy.

The prospect of evolving a lasting revenue sharing formula which would diminish the importance of population numbers, and at the same time reasonably satisfy the aspirations of contending interests, was dashed when the Constituent Assembly proved unable to agree on any alternative. As long as the situation remains the same, and petroleum revenues continue to be the main source of all governments' income, there appears little hope that future census exercises will not be exercises in futility.

The creation of the present 19 states out of the former 3 regions and the endless political agittation for more are also significantly tied to the on-going struggle for bigger shares of

the national oil wealth. State creation itself is dangerously complicated by a number of ethnic and cultural issues which are outside the interest of this work. But whatever they are, it is obvious that, largely because of the prohibitive cost and expense involved in administering and developing new states, as many as 19 states would not have been created were it not that the vast petroleum revenues provided the means of doing so.

In Table 4.9 we present evidence for the critical financial dependence on federal handouts by the states. On the whole the states are more than 88 per cent dependent on federal allocations for their existence--extremes are the North Western State (94.69 per cent), on account of its very low generation of independent revenue, and Lagos State (63.36 per cent) owing to the large concentration of industries and commercial businesses there which yield substantial personal income and profit taxes. Because of the extreme discrepancy between the revenues that can be raised within each state and what the state requires to fulfill its administrative and other functional responsibilities, it is evident that most, if not all, of these states would cease to be viable anytime federal allocations were cut off or drastically lowered. And federal ability to continue to sustain the states financially is entirely tied to the fortunes of the oil industry.

Even when the states deliberately overspend their annual incomes, as is the common practice with all of them, the federal government must come up with supplementary bail out funds to save the states from defaulting. This has been a speciality of the Rivers State government, based partly on the psychological argument that since it provides a large proportion of the oil wealth for the whole country it will be both unrealistic and unfair to ask it to curtail its spending. For

Table 4.9. State Governments' Financial Dependence on Federal Statutory Allocations (1976/77 financial estimates).

<u>State Government</u>	<u>Total Revenue</u>	<u>Federal Statutory Allocation</u>	<u>Independent Revenue</u>	<u>Degree of Dependence (per cent)</u>
Benne Plateau	144.7	133.5	11.2	92.26
East Central	239.4	198.5	40.9	82.92
Kwara	170.8	157.6	13.2	92.27
Kano	115.5	106.7	8.8	92.38
Lagos	145.2	92.0	53.2	63.36
Mid Western	246.5	221.9	24.6	90.02
North Central	144.8	132.2	12.6	91.30
North Eastern	199.7	188.3	11.4	94.29
North Western	165.7	156.9	8.8	94.69
Rivers	173.3	161.8	11.5	93.36
South Eastern	146.4	131.6	14.8	89.89
Western State	<u>268.4</u>	<u>216.2</u>	<u>52.2</u>	<u>80.55</u>
Total All States	2,160.4	1,897.2	263.2	87.82

Source: Compiled from Third National Development Plan, 1975-80, p. 56.

example, the state's total recurrent and capital revenues for the 1977/78 fiscal year was N256,960,016 (out of which only N18,704,510 or 7.3 per cent was internally raised) while its total expenditure was N336,519,830, leaving a deficit of N75,559,814, or 23.6 per cent, to be picked up by the federal treasury.<sup>28</sup>

However, the relative ease with which federal government picks up state bills has encouraged serious political agitation for the creation of many more new states by 'minority' communities, large and small, who often claim victimization and denial of opportunities within their present states. The prevailing political mentality is that if you must have a fair share of the 'national cake' then it is better to bring administration as close to yourself as possible.

Another very significant political consequence of petroleum in Nigeria, one which is key to political stability in the country, concerns resolving the dilemma of centralism versus the regionalism of the states. Before the civil crisis, the center was constitutionally too weak and the regions too strong so that powerful regional politicians constantly embarrassed the country. That system collapsed in the chaos of the civil war with the creation of smaller states, none of which on its own was strong enough to effectively defy the center any more.

Although that represented a bold political action, which only the military administration exercising absolute authority could have taken, it must be obvious from our analysis thus far that the power factor of money now controlled by the center is key to this coup d'état. Control of oil incomes is paramount to that situation.

## Conclusion

Based on the information and analysis presented in this chapter, and in light of the preexisting social and economic conditions described in Chapter 1 as background to this work, it seems reasonable to conclude that petroleum has proved to be the one single recent factor that makes Nigeria what it is today. Its social, economic and political implications have been far reaching.

The boom created by oil in the economy has been substantial and profound. But while this might, for a long time, continue to be the means of affluence and achieving the good things of life for only a few who have the opportunity or know best how to exploit a crisis situation, many others would most likely continue to be hurt by the social and economic dislocations caused or aggravated by it.

For instance, inflation, specially aggravated by factors directly and indirectly emanating from petroleum, hurts many more than benefit from it. Neither the aging populations stranded in the derelict rural places, nor the youthful optimists who throng the cities in the hope of participating in the oil-induced economic boom, will ever escape the pangs of hunger and other social crises which are everywhere becoming the trademark of an oil economy.

For Nigeria in particular, the political gains from oil have been great, but not without cost. National political stability, which has been predicated on political fragmentation and central power superiority over the states, took the experiences of the civil war to prove. If this proves eventually to be realistic and lasting, then oil, which

provides the most important means of achieving it--federal financial viability--will have yielded the greatest political premium.

There are other advantages that derive from the creation of many states. In spite of corruption and inefficiency, states have been a force and an instrument of spreading what can be called marginal development. It is an indisputable fact that some of the recent constructions, investments and programing that have been attempted in the Rivers State from Port Harcourt would not all have trickled down from Enugu or even Lagos as they tried to do before state creation in the case of the defunct Niger Delta Development Board.

## NOTES

- <sup>1</sup>The so-called North Sea bonanza--oil and gas--has been a subject for lively debate in Britain concerning its worth, current and potential, as well as how best to make the most of it without seriously aggravating already ailing economic conditions. The debate involves politicians from Britain's main political parties, professional and laymen from all walks of life. Such cross-fertilization of ideas, absolutely essential if bad mistakes are to be avoided, are denied to Nigeria and perhaps most of the developing country oil exporters. See for example, D. Yergin, The Great Fritter Debate, in *New Republic*, vol. 179, August 5, 1978, pp. 15-17; C. Roosevelt, Report From the North Sea: Importance of Planning for Offshore gas and oil Development, *Ocean*, vol. 8, Sept. 1975, pp. 6-7; *Business Week*, May 29, 1978, pp. 41-2, Bigger State Share of North Sea Oil: British National Oil Corporation; *Business Week*, June 30, 1975, pp. 28-9, Britain's Oil Bonanza Has a Catch; R. Gelatt, North Sea Oil: A Cautious Approach to Prosperity, in *Saturday Review World*, vol. 1, July 13, 1974, pp. 7-9 (in case of Norway).
- <sup>2</sup>This survey was carried out with much assistance from some members of the National Youth Service Corps (NYSC) who were serving in Port Harcourt from September to November 1977. These were fresh university graduates required by law to do one year of national service before getting into regular employment.

- <sup>3</sup>For several years after the civil war ended, some intense ethnic tension lingered between the Ibos and some Rivers State communities. Ibos had owned nearly all the existing property in Port Harcourt but had to vacate them temporarily during fighting when they fled to the Ibo heartland for shelter. In their absence, various peoples of the new state (Rivers State) surged into the city and 'captured' those property. After the war bonafied owners were prevented from reacquiring or getting compensations for them by the state government which had declared those property 'abandoned' and therefore claimable by anyone of the state origin who found them first. Naturally the policy generated a lot of acrimony and even hate as a result of which it became unsafe for Ibos to reside and do business in the Rivers State until recently.
- <sup>4</sup>Ministry of Trade and Economic Development, Statistics Division, Port Harcourt, unpublished data, 1977.
- <sup>5</sup>There is also the highly psychological and emotional problem of people regarding Port Harcourt as the pride and showcase of the state. To them it is the 'Garden City' or simply Pitakwa. It is difficult to explain why this feeling exists since even in terms only of urban morphology, the city would not qualify for that title. Realizing the strength of this in bringing many people to town, Government has mounted a propaganda campaign to stem the tide. But verbal campaign only cannot do the job unless it is backed by imaginative development programs that de-emphasize the functional and cultural attractiveness of Pitakwa.

- <sup>6</sup>Federal Office of Statistics, *Survey of Urban Housing Conditions*, 1970-71, Lagos.
- <sup>7</sup>Federal Office of Statistics, Lagos, National Agricultural Sample Census of Nigeria 1974-75, *Consolidated Results of Rural Household Enquiries 1974-75*, p. 5.
- <sup>8</sup>See Guy Arnold, *Modern Nigeria*, Longmans, London, 1977, p. 62.
- <sup>9</sup>J. Benham characterizes the sum of petroleum industry's effects in Venezuela as 'a curse in disguise', producing what he calls the worst economic crisis in the whole Western World. His account, corroborated by those of others makes the story of oil in Venezuela read so much like in Nigeria. On Venezuela see, J. Benham, Venezuela's Oil Riches: A Curse in Disguise, in *U. S. News and World Report*, vol. 85, Dec. 11, 1978, pp. 53-4; N. Grove, Venezuela's Crisis of Wealth, in *National Geographic*, vol. 150, August 1976, pp. 175-208; *Business Week*, "Oil Glut Curbs a Spending Spree", March 13, 1978, pp. 42-3; *Business Outlook*, Venezuela, October 5, 1977, pp. 316-318; and *Business Latin America*, 'The Venezuelan Quagmire: Oil Wealth Has Not Been All That Favorable', July 6, 1977, pp. 209-211.
- <sup>10</sup>The problems and frustrations--economic, social and political--of coping with a petroleum dominant economy in Indonesia are fully treated in the following recent works: Indonesia--A Land of Promise: The Wealth of a Troubled Paradise, *Time*, May 16, 1977, pp. 46-48; Seth Lipsky and Raphael Pura, Indonesia: Testing Time for the 'New Order', in *Foreign Affairs*, Fall 1978, vol. 75, No. 1, pp. 186-202; Katili, J. A., "Problems of Resource Development

in Southeast Asia With Special Reference to Indonesia", *Indonesia Oil and Gas*, vol. 1, No. 2, Sept. 1975 and vol. 1, No. 5, Dec. 1975.

<sup>11</sup>Central Bank of Nigeria, Research Department, Lagos, *Monthly Report*, Dec. 1977, p. 31.

<sup>12</sup>A most recent account of the problems of inflation, agricultural abandonment, neglect of the countryside, social and political upheavals that Nigeria is undergoing at present has been made by Noel Grove, who as also in Venezuela, thinks that the oil boom has turned into an oil doom. See N. Grove, Nigeria Struggles With Boom Times, in *National Geographic Magazine*, vol. 155, March 1979, pp. 413-444.

<sup>13</sup>Professor Sam Aluko of the University of Ife, Nigeria, is blunt and positive that the present inflationary problems in the country are the direct result of Federal budget expenditure patterns and levels, and a host of bad fiscal policies, including unsound tariff measures which permitted unrestricted foreign imports. For more details see S. A. Aluko, Inflation and the Budgets, in *The Economic Insight*, University of Ife, vol. 1, April 1976, pp. 9-14.

<sup>14</sup>Another prominent Nigerian Economist, Dr. S. U. Ugo, in a Presidential Address to the Nigerian Economic Society in 1971 made this point very strongly. In his view excessive demand was being generated by government public expenditures as well as constant upward revisions of worker's salaries, all motivated by the possession of vast petroleum cash. See S. U. Ugo,

Presidential Address, in *The Nigerian Journal of Economic and Social Studies*, vol. 13, No. 1, March 1971, pp. 3-12.

<sup>15</sup> Federal Office of Statistics, Lagos, *Annual Abstract of Statistics*, 1974, p. 149.

<sup>16</sup> Federal Ministry of Economic Development, Lagos, *Third National Development Plan 1975-80*, p. 50.

<sup>17</sup> Nobody has the vaguest idea how much these events cost the country because there was no accounting, no verifiable records nor were they expected to be kept. Therefore estimates of the costs of those gigantic events vary as widely as different researchers choose to make them. On the average estimates of the cost of the FESTAC range between N0.5 billion and N1.0 billion (US \$0.8 billion and \$1.6 billion)--see *National Geographic Magazine*, vol. 155, March 1979, p. 418. The total cost of the World Trade Fair hosted and financed by Nigeria is also put at between N100 million and N150 million (US \$160 - \$240 million)--see *West Africa*, No. 3154, December 19-20, 1977, p. 2553. Whatever their real costs, such unproductive and highly inflationary expenditures represent gross misallocation of funds and misplaced priorities, more so when there are countless unmet human needs all over the country.

<sup>18</sup> Terisa Turner, who penetrated the Nigerian system so thoroughly at both private and public levels, contends that 'bribes are the basis of competitive advantage' in business in the country. Her article (Multinational Corporations and the Instability of the Nigerian State, in *African Political Economy*, No. 5, Jan.-April,

1976, pp. 63-79) tries to expose the nature of the struggle, collaborations and selfishness that characterize the conduct of administration and business in the country thereby concentrating the petroleum fortunes in the hands of few highly placed public officials and private middlemen in business. It also shows the far-reaching and astounding political consequences of petroleum. Conflicts over oil policy, according to this author, were crucial in engineering the military coup that toppled General Gowon's regime in 1975.

<sup>19</sup>Federal Ministry of Economic Development, Lagos, *Ibid*, p. 341.

<sup>20</sup>The fact that Nigeria, the 6th largest oil exporter in the World still imports large quantities of refined petroleum products is in itself an evidence of bad planning and mismanagement. Annual import of petroleum products increased steadily from 10.3 million liters in 1964 to above 106.8 million liters in 1974 (see Federal Office of Statistics, Lagos, *Digest of Statistics*, vol. 125, Jan. 1976, p. 46) mainly from the Netherlands, France, Italy, the U.S.A., Venezuela, Britain, etc. The value of these imports soared from ₦8.97 million in 1971 to ₦181.3 million in 1976 (Central Bank of Nigeria, *Economic and Financial Review*, vol. 14, No. 3, Dec. 1976, p. 53). Such large imports intensify the inflationary course because the high prices of crude export from Nigeria and other oil exporters to the refining countries is indirectly and more than reflected in the price of imports.

<sup>21</sup>Ministry of Establishments and Training, Port Harcourt, unpublished data, 1977. This is a very unreliable figure because its calculation is based on the number of job applicants who registered with

the Ministry monthly. What of so many others who did not for a number of reasons including poor communication? They were not included in the calculation and this does not make the least sense.

<sup>22</sup>The now infamous cement racket and scandal which rocked General Gowon's regime will always serve to illustrate the existence and level of corruption in Nigeria as well as the chaotic economic and social problems that arose out of possession of vast, uncounted petroleum wealth. In 1975 someone in the Ministry of Defense ordered 16 million metric tons of cement and some other person in the National Supply Company also ordered 4 million metric tons. The total of 20 million metric tons were to be delivered in a year through a port complex that could not handle a fourth that amount. So massive was the order that the full export capacity of Europe could not fulfill it. Clearly there were irregularities involved in these unorthodox deals. In that year when cement could be had for US \$25 a ton and freight was \$15 a ton for a normal 60-day voyage from Europe to Nigeria, the Ministry of Defense was offering to pay suppliers \$55 a ton, cost and freight. Fifteen dollars a ton over the going price would be kicked back to those who awarded the contracts. The Ministry also agreed to pay demurrage of 40 cents per ton per day when rates were less than 25 cents. So attractive was the demurrage provision that the Nigerian ports soon became clogged with vessels of all descriptions, including adventurous cripples on their way to breakers yard, some with no more than a few bags of cement in them, but they too claimed quite a handsome

demurrage. On the average a ton of cement remained a minimum of 150 days at the sea outside Lagos harbor, incurring \$60 demurrage. Thus on the most conservative estimate, the country paid out some \$115 per ton of cement or \$75 per ton more than necessary. And by the time a new military regime stepped in to halt the scandal, over 4 million metric tons had already been landed at this fabulous cost. For a detailed account of this incident, see *Africa Guide*, 1977, pp. 213-223; U.S. Foreign Service, U.S. Dept. of State (Dept. of Commerce), Domestic and International Business Administration--Bureau of International Commerce: *Foreign Economic Trend and their Implications for the United States*, Jan. 1976.

<sup>23</sup>Embassy of Nigeria, *Federal Nigeria*, vol. 3, No. 1, April-May-June, 1977, p. 10.

<sup>24</sup>Pearson, S. R., *Petroleum and the Nigerian Economy*, Stanford University Prss, Stanford, 1970, p. 137.

<sup>25</sup>*Nigerian Tide*, Monday, November 14, 1977, p. 1.

<sup>26</sup>*Nigerian Tide*, *Ibid.*

<sup>27</sup>A very high rate of increase for Lagos is normal in view of the tremendous surge of immigrants from all over the country into the Capital city, particularly between 1970 and 1976. The surge still continues on account of extreme concentration of administrative, industrial and commercial, as well as cultural and social institutions in this port city. In fact, the amount of the oil wealth which the Federal Government is literally dumping in Lagos alone, at the expense of other parts of the

country, is a subject of serious contention by all the other states, including non-oil states. And the more efforts are made to resolve the myriad of problems that are perennial to Lagos, the more these get worse simply because such improvements attract countless other new immigrants to invade the city. The fortunes and chaos in Lagos, as the principal beneficiary of Nigeria's oil boom economic expansion, is described by Stephen Rosenfield in a mocking but accurate account in the *Washington Post*, Friday, November 4, 1977, p. 3.

<sup>28</sup>Ministry of Information, Port Harcourt, *Rivers State of Nigeria-- 1977/78 Budget Broadcast: Information*, April 14, 1977, p. 7.

## CHAPTER V.

## ENVIRONMENTAL EFFECTS OF OIL PRODUCTION

The Political Economy and Oil Pollution

Petroleum production in Nigeria began only 21 years ago. In that interval oil production grew to such a copious level, under Laissez-faire conditions, that the environment of the oil region has already shown signs of serious deterioration. While the benefits of oil may have pervaded almost all segments of society and the economy, though not always positively and to the same intensity, the adverse ecological impacts remain highly localized in the particular areas of production where they contribute to poverty and destitution.

Everywhere, oil production, transportation and utilization inevitably involve some kind of environmental stress, but the hazards can be substantially minimized depending on a whole mix of socio-economic and political factors.<sup>1</sup> For Nigeria, the factors that permit high levels of environmental pollution by the petroleum industry and the consequences of the stress can be found in Eckholm's postulation that:

A common factor linking virtually every region of acute poverty, virtually every rural homeland abandoned by destitute urban squatters, is a deteriorating natural environment. Ecological degradation is to a great extent the result of the economic, social and political inadequacies ...; it is also, and with growing force, a principal cause of poverty. If the environmental balance is disturbed, and the ecosystem's capacity to

meet human needs is crippled, the plight of those living directly off the land worsens, and recovery and development efforts--whatever their political and financial backing--become all the more difficult. The soft underbelly of global/rural development efforts, environmental deterioration, is an often neglected factor that severely undermines their effectiveness.<sup>2</sup>

Indeed, the Nigerian political economy is both inadequate and too deformed to control, let alone prevent, serious ecological degradation by the petroleum industry. The international oil companies operating in Nigeria are profit-maximizing enterprises and are little inclined to cooperate in preserving or restoring the environment in the process of robbing nature of her treasure. This will add to costs and reduce profits. And, because of their loyalty and adherence to their international parent bodies rather than the local authorities, they can only live with very limited interference in the conduct of their operations.

The Nigerian authorities themselves are even less enthusiastic about environmental preservation in the oil industry. Petroleum wealth, we saw, is the sole basis of the entire development effort in the country. The economy is totally and dangerously dependent on it--86 per cent of all federal government's revenue, 93 per cent of total foreign exchange earning, 45 per cent of gross domestic product and so on. Therefore, government cannot afford to antagonize the industry even in spite of the 55 per cent 'controlling shares'. The industry is not unaware of the extreme leverage which this over-dependence on a single primary production offers in bargaining and makes no bones of it as the situation in the industry in 1978 amply proved.

Beginning from 1975 and up to 1977, partly in compliance with OPEC's pricing and other regulatory policies, but also in view of the premium nature of Nigeria's light crude, the government was able to manipulate the concession terms, increased its share of the profits at the expense of the companies and even attempted to bring into effect some scrutinizing and monitoring provisions which were gathering dust in the concession books. In reaction, all the companies suspended any further exploration so essential to progress in that industry, curtailed existing operations and even started to switch operations from Nigeria to 'more lucrative' locations.

Faced with the imminent prospect of a substantial revenue loss which would result from production decline to only 1.5 million bpd instead of 2.4 million previously, the government back-pedalled and offered conciliatory terms to encourage further prospecting and development--an offer which was tantamount to total capitulation.<sup>3</sup> This proved that the Nigerian National Oil Corporation, which in theory owned most of the industry, was not only not interested in anything other than the financial relations, but also could not exercise any effective control over its supposed junior partners, who in effect carried out the field operations. And it is out there in the field that stress occurs.

The political system also complicates the problem. The oil bonanza, as pointed out, has proved to be the most effective instrument of unconditional central control and regulation of the once powerful and recalcitrant states. The states themselves do not worry much about their loss of status so long as they can cut themselves a sizeable piece of the 'national cake'. Thus when an alarm is

raised about the dangers of oil pollution in the Niger Delta, such alarm is often dismissed as sectional interest and agitation or considered with indifference. People from unaffected areas are always quick to remind the rest of the 'unpatriotic citizens' of the overriding nature of national interests over sectional self interest. Thus to generate sufficient revenues from petroleum, even at the cost of the local environment, for the general development of all parts of the country is considered to be in the national interest; to advocate moderation or some restitution to be made in restoring and maintaining ecologic balance in the localities of the oil fields is sectional interest and an unpatriotic act.

Many academic observers and commentators have allowed their positions to be guided by the current of political emotions that are commonly expressed in this issue. In the face of massive oil and gas pollution from ordinary operations and accidents, some of these observers still insist that no harm is being done and that occasional little spills and accidents are insufficient to worry about and are pardonable. For example, an eminent Nigerian Professor, A. M. A. Imevbore (1972) told a large public audience that:

With respect to the oil industry we have been subjected in the press recently to numerous inspired publicity agents for the environment, making statements about oil pollution in the Niger Delta. Some of these articles are shrill and exaggerated and the sad thing is that the layman and nonscientist will gain the mistaken impression and become quite concerned that the oil industry is indulging in regional vandalism and doing devastating damage to the environment ... While it must be admitted that there have been some deleterious effects on the environment as a consequence of the activities of the oil industry, to equate the one (i.e., deleterious effects) with the other (regional vandalism) is not helpful.<sup>4</sup>

There is no doubt that if this scientist were ever in the oil fields himself, particularly in the late seventies, he would never have said this of the petroleum industry or he would be guilty of serious academic deceit. However, although Imevbore grudgingly admitted to the occurrence of 'some deleterious effects on the environment as a consequence of the activities of the oil industry', he appeared more concerned to refute any suggestion of regional vandalism (a charge repeated in 1977 at the floor of the Constituent Assembly by Mr. R. B. Adewunmi of Lagos State) than to contribute objectively to an awareness of the level and seriousness of environmental problems in the country.

The rest of our analysis in this chapter will therefore strive to show, in the words of Eckholm, that the environmental balance in the Rivers State has been disturbed; that the ecosystem's capacity to meet human needs has been crippled; that the plight of those living directly off the land has worsened; but that recovery and development efforts have become doubly difficult for lack of political and financial backing of any sort.

#### Oil Pollution in the Rivers State

According to our calculation in Chapter 2, the Rivers State accounts for about 42 per cent of Nigeria's onshore oil production. If the extensive offshore fields in this region are also considered (all offshore drillings are technically in Federal territory), the state's output would be considerably greater. Thus there are numerous pipelines and oil flow channels criss-crossing land and

water surfaces from the scattered oil fields to the crude loading jetty at Bonny and to the refinery at Eleasa Eleme. The refinery itself is a big source of pollution, particularly to the Okirika River into which waste products from the refinery freely enters as well as refined products spilled during loading on to local distributing vessels at the refined products jetty on the river. Therefore, by far more than 42 per cent of the industrial hazards inevitable in oil exploration, production, transportation and refining is the share of the state of the negative 'national cake'.

Oil pollution takes various forms. Petroleum operations sometimes involves the construction of burrow pits, access routes, pipeline routes, drainage embankments, river or stream diversions and so on. Often these activities result in the damming of streams or total diversion either of which may damage or seriously disorganize economic activities in the villages. By so blocking approach routes for fish, some of the best natural inland fishing grounds and man-made fish ponds are permanently put out of use.

Sometimes prospecting and drilling activities sever natural streams into several unconnected, stagnant and fetid ponds. These extensive pools become natural breeding places for mosquitoes, water snails, and other vectors of different kinds of tropical diseases. In other cases, river impoundments result in flooding of extensive arable land, which is then lost to cultivation. Here we recall that the profile of the physiography of the Niger Delta region sketched in Chapter 1 indicates that, even under natural conditions, drainage is everywhere a problem.

The commonest form of pollution involves oil blowouts, seepages and deliberate flushing activities as a result of which

thick layers of crude oil occasionally flow over land, vegetation and water surfaces. The oil may dry up and cake the land or may start fires which destroy hectares of forest and arable land, sometimes threatening villagers with evacuation. Such was the case in Bori in 1973 (see below). In places like Bonny and Okirika, even when blowouts have not been recorded, the variable thickness of oil films on the surface of the estuarine waters and on the benthos of rock and marine areas, all come from continuous seepage from the jetties during the loading of vessels.

Blumer et al. (1971) point out clearly that oil is a chemical that has severe biological effects. They quote Kolpack as reporting that oil from the blowout at Santa Barbara, California, was carried to the sea bottom by clay minerals and that within 4 months after the accident the entire bottom of the Santa Barbara basin was covered by oil from the spill.<sup>5</sup> In Nigeria, Dr. Idonigboye-Obu (1973), one of the few lonely voices crying out against the dangers of unchecked oil pollution in the Delta, shows that all over the creeks oil pollution has been very lethal to aquatic life. In his work on oil pollution of the muddy littoral zone near Finima (south of Bonny) he concludes that 'oil retained in the mud was 100 to 300 times above the threshold given by Miranov for several marine species in the Black Sea, and the superficial oil inundating the water was as high as 40 to 800 times the thresholds given by Miranov for Black Sea species'.<sup>6</sup>

The extensive flaring of abundant natural gas has already been mentioned. The thing about it is not so much the unjustifiable waste involved (though that is quite serious), but the destructive

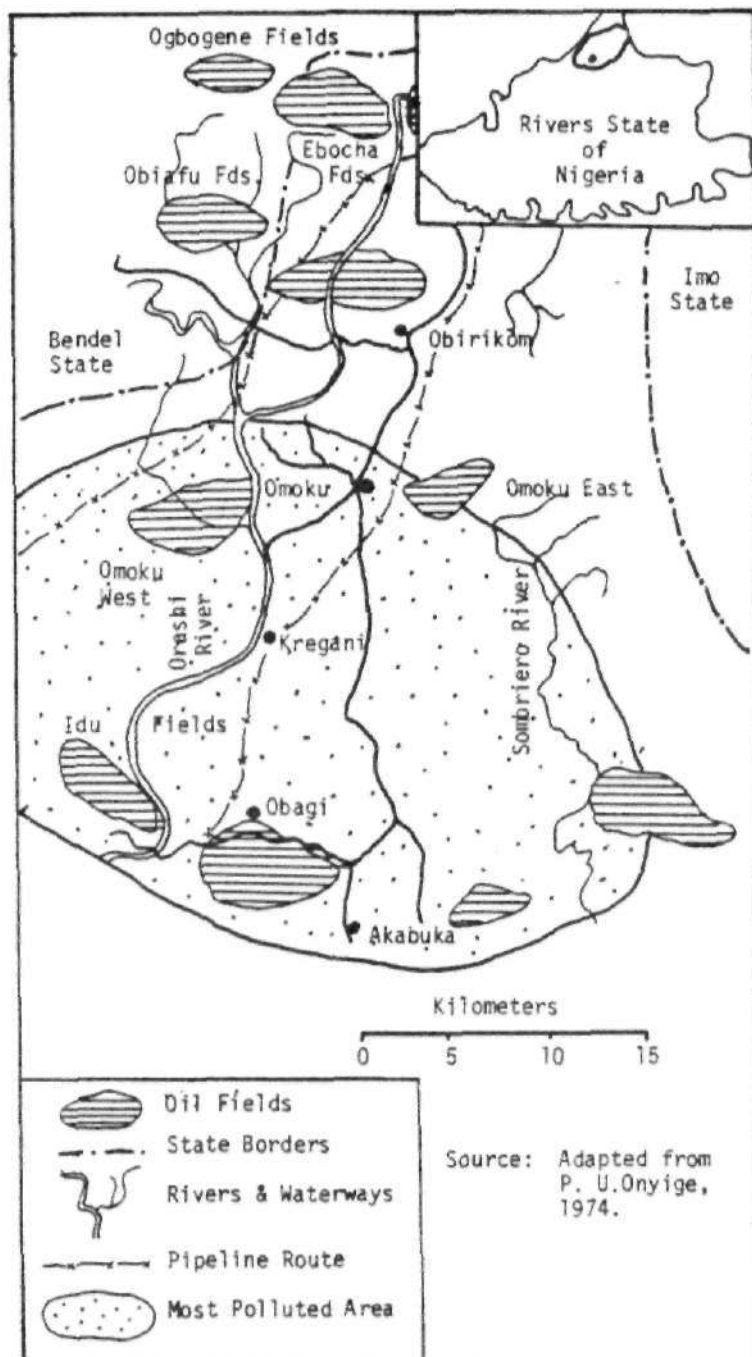
effects of the resulting inferno. In both the mangrove and rain forest areas, much of the vegetation and a number of economically important trees including mangroves, raffia palms, iroko, obeche, palm trees, cacao, rubber and even cultivated crops such as cassava, are charred to death. Sometimes the undesirable heat and glow, apparent many miles away from the oil fields, have driven villagers from settlements close to the oil wells.

The villagers complain that the heat and glow seriously affect traditional hunting as an occupation and an important source of animal protein by frightening animals out of their range. In an environment where local diet is greatly deficient in animal proteins, this can be serious from the point of view of dietary balance of the communities as well as the unemployment situation. Traditional hunting, which is periodically undertaken both as sport and part-time occupation, is therefore in danger of total collapse. If this happens, then an important component of the material culture will have been irretrievably lost.

We will describe a few cases of the most flagrant violations to illustrate the nature and seriousness of environmental problems the oil industry is creating. For caution we have to make it clear that since these unpopular and negative sides of the industry are hardly documented publicly, nor have they interested many researchers in the past, our main sources of information must be oral accounts by the natives who claim to be eye witnesses of the incidents and any physical evidence turned up by our field observations.

In 1971, a terrible explosion occurred in one of Agip's Obagi fields during operation (Fig. 5.1). A mixture of oil, water, sand,

FIG. 5.1. GENERALIZED CASE OF OIL POLLUTION FROM THE 1971 OBAGI OIL BLOW OUT



stone and gas was reported to have been continuously emitted for days. The effects may have covered a distance of over 20 kilometers in radius, destroying and polluting rich arable land, crops, economic trees, sources of drinking water and fish ponds. While the effects lasted, overland and water communications between neighboring villages were disrupted to the extent that their commercial activities were paralyzed. Also, building walls in nearby villages were cracked by the explosion. The blowout was eventually contained, but not before evacuation and resettlement of nearly 28,000 panicked villagers was seriously contemplated. Nobody officially calculated the extent of the damage caused, although there were field inspectors in the Ministry of Mines and Power who were supposed to do this.

Another mishap, which occurred at Agips (B) location at Omoku West (Fig. 5.1), was particularly tragic in terms of its economic ruin. For operations to be possible in this location, the company had to divert the course of rivers and build dykes and embankments. As a result of this several hectares of commercial agricultural land were flooded and lost to agriculture. Also, several fish ponds below and above the points of impoundment were wiped out. The owners of the fish ponds estimated their losses at about ₦8,000 annually (based on an average catch value of ₦400 per pond) but it was obvious that over several years the losses would be enormous since the damage was permanent.

Similar blockages of rivers in 1973 at Obirikom fields wiped out trees at plantations and farms conservatively estimated at ₦100,000 by natives who applied to the company for compensation. Another blockage, similar to this in kind, but greater in effect, occurred in 1975 at Obiafu; it completely ruined land, vegetation

and crops within nearly 4 square kilometers. No form of economic activity can take place on the affected area for several years. The natives applied to the company involved (Agip) for a meager ₦500,000 compensation, which they never received anyway.

Two blowouts occurred in September 1977 when the field research for this work was in progress. One was at Obirikom station operated by Agip. Drilling pipes blew out spilling crude oil and hot water over streams and land as a result of which fishing and agriculture became impossible in the affected area. On-the-spot assessment of the ruin was ₦145,000, although in actual fact, it could be much more than that.

The second blowout occurred at nearby Okwuema station where spouts of oil and gas reached great heights into the atmosphere. It set off a big conflagration which sent the villagers packing from their homes. The ensuing oil spillage covered streams and farmlands as usual, putting them out of use. One family most affected by the mishap lost a total of 7 fish ponds of about 60 by 30 meters each. When the worst was over they came back with plastic buckets skimming and carrying oil out of the heavily polluted ponds in the hope of salvaging something.

It is not necessary to run a whole catalog of catastrophies in order to establish the case that oil pollution is indeed a physical fact in this region. Nor do we imply in any way that Agip Oil Company was the only culprit we found. In the time available, we could not cover more than one major concession for a detailed examination of cases of pollution and ecological dislocation, and Agip's concessions happened to be more convenient from the point of

view of accessibility and familiarity. After all, what have been regarded as the worst cases of oil pollution and environmental destruction in the state belong to Shell's Afam 17 C and T wells in 1975 and also at Bomu in 1973. S. K. Igbara (1973 and 1977) did some independent preliminary investigations of the causes of these frightful accidents and offered some thoughts on their political implications.<sup>7</sup>

What does industry itself think about the undeniable cases of pollution and their ecological impacts? During interviews, the oil companies agreed generally that several 'cases of alleged pollution and stress' do occur, but they blamed most of them on what they called 'speculators who hope to gain thereby.' For instance Shell-BP claimed that the horrendous incidents at Wells 17 C and T at Affam were the machinations of saboteurs who would turn round after the accident to file a long list of compensation claims, i.e., the natives. But investigations by S. K. Igbara revealed that, on the evidence of secret testimony by some of the technicians at work when the mishap occurred, negligence was the cause. Excessive pressure build-up at a time when there was no cooling water in the system resulted in a blowout of the wellhead.

Some local accounts admit that occasionally some natives, who become irate and aggrieved about the destruction of their property and their inability to secure adequate compensations for these, have vented their anger on the companies by vandalizing some of their property. There are accounts that sometimes this takes the form of trying to cut pieces of the steel oil pipelines to use in supporting homes or building culverts across village streams. Such practices

are rare and on a minor scale, and definitely not affect wellheads where most of the accidents occur. At wellheads security is heavy and keeps everyone out of bounds. Even then, the natives would have needed some elaborate training in petroleum technology (which was not the case) to have been able to accomplish devastation of the magnitude that has occurred.

Only one of the three major oil companies active in the Rivers State was at all specific about questions relating to the occurrence of pollution and their involvement in it. By 1976 Elf Company listed and accepted responsibility for 12 major cases--3 involving swamp operations and 9 on communal lands. Yet for several years, peasants' outcry about the alarming effects of oil pollution on their farming and fishing activities have gone unheeded. The climax of local protest is represented by the 1973 open petition by Bonny town and villages to the state's Military Governor.<sup>8</sup>

There were three vital elements to their petition. First, they requested the Governor to use his good offices to persuade Shell-BP and Gulf, who were polluting their waters and land, to pay compensation totalling ₦3,434,000 for damages done so far. Secondly, they demanded that someone should intervene to prevent further destruction from occurring. And last, but not least, they strongly protested the partisan, or divide and rule, policy of the companies who, by inciting one clan to feud with another over property rights in the same property owning community, find it easier to shake their obligation to pay compensation.

Numerous similar protests and public statements by concerned individuals culminated to the first visit of a Federal Minister,

the one in charge of Mines and Power, Alhaji Shettima Ali Mongono, to the oil-rich Rivers State in 1973 to see things for himself. On the evidence of what he saw, he urged the federal government 'to look seriously into the problem of pollution arising from the oil industry' adding that 'the problem in all its complexity should be nipped in the bud. If we are to avoid unhappy experiences, pollution in all its forms should be tackled right now before it is too late.'<sup>9</sup> We can only add right now that oil pollution in the Delta was not just budding when the Honorable Commissioner (Minister) spoke out, it had fully matured. But the apparent economic and political needs of the country continued to drown individual concerns.

#### Legal and Judicial Aspects of Pollution and the Question of Compensation

Some of the afflicted communities and even individuals have occasionally tried to obtain redress in the law courts, but often their efforts have come up against a number of legal, administrative and judicial difficulties. Recourse to the law courts becomes necessary in the first place because the oil companies either do not want to pay compensations for damages done or agree to pay only a pittance which does not compensate for the harm done. Sometimes even the pittance is paid to the wrong claimants or pretenders, thereby locking the whole issue in endless and unresolvable judicial tangles.

It was pointed out in Chapter 2 that the petroleum decree No. 51 of 1969 and subsequent amendments to it have become the all-embracing enactments which supposedly regulate all matters

pertaining to the operations and relationships in the industry. But it is clear that the decrees were only specific and authoritative in entrenching and safe-guarding government's financial interests and relations with the foreign oil companies. Issues concerning violation of individual and communal rights and property were only implied as an afterthought.

For example, Article 8 of the decree merely said that the Commissioner of Mines and Power 'may make regulations regarding the prevention of pollution of water courses and the atmosphere.'<sup>10</sup> This provision does not carry any force or compulsion, it has therefore neither moved officials into action nor intimidated the companies into caution. Article 10, Section (1) loosely recommends that settlements of all disputes should be by mutual arbitration between the offender and the injured.<sup>11</sup> It happens then that those injured--individuals and small community groups--often illiterate and unorganized, constantly find themselves at the mercy of the powerful multinational giants.

Because of the manner in which these provisions were worded and the little or no weight they carry, the courts feel their hands tied in deciding the few cases that manage to clear administrative hurdles to reach them.

As if to complete the insulation of the companies against heavy claims for damages done, Part III, Section 21 and paragraph 2 of the decree ambiguously stipulated that a licensee or lessee who causes destruction of property shall pay 'fair and adequate compensation to the owner thereof provided that:'

In the event of any dispute or uncertainty as to the owner of any productive tree or as to the amount of compensation payable, the licensee and lessee shall deposit with the state authority such sum as shall appear to that authority to be reasonable satisfaction in full or in part of whatever compensation the licensee or lessee may be found liable to pay to the owner, without prejudice to the right of the licensee or lessee to recover any amount paid in excess of the said compensation.<sup>12</sup>

The first problem with this provision is that it exposes state officials unduly to corruptible influences since no standards were set for them as criteria for determining what would be 'fair and adequate' if the mutual arbitration process breaks down. Often this has worked against local interests. Secondly, this provision, although recognizing that disputes and disagreements would be inevitable, contains nothing either to prevent it or ensure that justice and fairplay are practiced. Instead it provides for the companies to take back part of whatever amount they have deposited with state authorities if they (the companies) think they overpaid. In other words it is a company who eventually decides how much is 'fair and adequate', to whom and how this is to be paid.

But unfortunately, small as some of the compensation monies may be compared to what was damaged, they have occasionally triggered serious domestic contests and counter claims. Sometimes it is one kin contesting another for the money while other times it is many local influential persons shoving one another and posing, often fraudulently, as the accredited representatives of particular clans or communities. Some of these live in the cities and when once any money is paid to them, they frequently disappear with it.

We will recall that the Nigerian National Petroleum Corporation (NNPC) was created in 1977 by amendment of the existing petroleum

decree.<sup>13</sup> By acquiring 55 per cent controlling shares, the NNPC became the senior partner in the industry. Thus legally the NNPC can be as much or even more liable for damages and claims than the foreign junior partners. But to prevent such from happening, Part III, Section II, paragraph 1 of the decree said that:

Notwithstanding anything in any other enactment, no suit against the Corporation, a member of the Board or any employee of the Corporation for any act done in pursuance or execution of any enactment or law, or any public duties or authority, or in respect of any alleged neglect or default in the execution of such enactment or law, duties or authority, shall lie or be instituted in any court.<sup>14</sup>

The only comment that is called for in respect of this military approach to the petroleum issues in the country is to say that it finally closed the roads to the courts against those who suffer personal and communal property and other injuries in the process of oil production.

Before this happened the few clearcut cases of negligent violations and damage to property which succeeded in making the courts were lost often on the basis of so-called 'lack of executive capacity.' Trained technicians and experts of the Inspectorate Division of the NNPC are charged with the responsibility to investigate and write technical reports of reported cases of petroleum accidents and their environmental impacts. It is only on the basis of such expert testimonies that cases in the courts can be won or lost. But in reality neither serious investigations nor the technical report are made or written. This is blamed on 'lack of executive capacity' in the Inspectorate Division, which simply means that they do not have enough trained manpower to do the job.

Court decisions therefore must be based on the strength of

'technical reports' from highly competent witnesses who must testify that pollution and stress actually occurred and did or did not have scientifically proven adverse effects on the property or persons in question, and if so, that the damage is worth so much in compensation. Few of such independently carried out investigations have ever been in the peasant's favor, in spite of the obvious to the non-scientist.

In 1972, Dr. Odu, a soil microbiologist at the University of Ibadan led the country to believe that the weight of current scientific opinion is that soil is never permanently sterilized by oil spills.<sup>15</sup> Schwendinger<sup>16</sup> (1968) had previously reached similar conclusions. Both stressed that it takes about 3 years for partial reclamation of the soil to take place naturally, except in cases of excessive spillage.

It is evident that these scientists, in their calculations, did not reckon with the inevitable loss of livelihood which awaits the owners of the property for those 3 years before nature comes to their aid, if in fact such is the case. Nor did they reckon with known and unknown indirect effects on humans through oil pollution of the food chain. Perhaps more serious than these is the fact that opinions such as these complicate and delay awareness and efforts to be ecologically responsible. Against an overwhelming evidence of immediate and permanent destruction in the oil fields, which even the most unscientific minds can see and recognize, it becomes tempting to regard these so-called technical opinions as mercenary and highly subjective.

As a matter of convenience, it was necessary to consider some of the extraordinary factors and imperfections that circumscribe

the issues of damages and compensations before looking at specific payments or cases. Some of the oil companies have in fact been paying what in their estimation amounts to 'fair and adequate' compensation although only a few provided us with specific numbers.

Between September 1974 and October 1977, Shell-BP reportedly paid out ₦1,200,000 approximately in compensation annually, making a total compensation of ₦3,533,063.04 for the period. This was specifically for land acquisition and general damages involving economic crops, farm lands, fishing ponds, and others. For the same period Elf Oil Company paid out a total of ₦572,246.21.<sup>17</sup> Agip and Gulf returned no figures. It is ironical that the companies all pointed these payments as part of their contributions to the local economy.

It was not possible to determine, on the basis of the scanty information provided, how many or which communities received monies or what was the average value of a single payment. But it makes sense to think, in view of the imperfections in the process, that these amount were too meager relative to what the affected communities were asking for, as we saw, for example, in the case of Bonny. This has to be so since in cases where the oil companies decide to pay compensation they base their evaluation on an outmoded document of the former Eastern Region (1965) which stipulates rates of compensation payments for only a few items and has not yet been replaced.

Table 5.1 is a selected list from the East Regional Valuation List of 1965 which is still being used by the companies. Let us consider only the case of a mature palm tree as a test of the

Table 5.1. East Regional 1965 Valuation List for Selected Plants  
(N per plant).

<u>Crop or Plant</u>	<u>Mature</u>	<u>Immature</u>	<u>Seedling</u>
Oil Palm	0.67	0.34	Nil
Rubber	3.58	1.79	0.60
Cocoa (cacao)	0.86	0.43	0.17
Raffia Palm	4.49	2.25	0.56
Coconut	2.53	1.26	0.42

Source: File ELS/849/S.1./C East Regional 1965 Valuation List,  
p. 21.

reasonableness of evaluations based on this list and to show why the natives are incensed and disgruntled.

McIlroy (1963) estimated that palm trees begin to bear fruit 4-5 years after planting (although many grow wild in Nigeria) and that full yield is 10-13 years. Economic life of a palm tree is 50 years and an average tree yields up to 12 bunches annually.

During the period of our research in 1977, an average bunch of palm fruit sold at the rate of 10 kobo in the local market. But generally the natives do not sell oil palm by the bunches. They process them at home to produce red palm oil. An average bunch produces about 0.9472 liters (2 pints) of oil which in 1977 sold in local markets at an inflation rate of 80 kobo or ₦0.80 per beer bottle of 0.4736 liter capacity (1 pint). The selling price for the same bottle in 1965 was only 10 kobo or ₦0.10. However, at the current rate the income derivable from one palm tree in a year would be  $(2 \times 12 \times 80)K = 1920 \text{ kobo} = ₦19.20$ . For the 40 years or so during which the tree is in full yield the total income to the owner would be  $(19.20 \times 40)₦ = 760,000 = ₦760.00$ .<sup>19</sup>

Our estimate here does not include other incomes from the sale of palm kernels, brooms, etc., which are all very substantial and significant to the local economy. It can be seen immediately that compensation paid at the rate of 65 kobo for a mature palm tree (according to the Valuation List) is finite and unrealistic.

Take the case of damaged fish ponds also for further consideration. Owners of such ponds were reportedly paid between ₦35.00 and ₦50.00 per pond in compensation once and for all. This was also according to provisions of the East Regional Valuation List. The

average annual yield of a pond, according to owners' calculations, is between ₦450.000 and ₦700 a year. Once again we are confronted with the absurdity of the compensation rates. But even more odious than that is the fact that no amount of compensation money can bring back a heavily polluted, blocked or obliterated pond to life. Thus pond culture, an important aspect of the traditional fishing practice, is fast disappearing both as an occupation and game. The immediate impact of this is reflected in the local market where the prices of smoked fish soared over 750 per cent in November of 1977 while those of fresh fish increased by about 900 per cent, based on 1965 prices.

With respect to land itself, there are no specific rates of compensation stipulated in law. Land is not classified in kinds, nor are different levels of pollution. For example, there is no differentiation between prime land and swamps or between agricultural land and wilderness. Thus when pollution occurs there are no legal criteria for objective assessment of equitable compensation. The creeks and other water channels are treated as common property resources for which no one in particular has responsibility or can claim damages.

Are there any alternatives to the present methods of evaluating and paying compensation? During our interviews we asked state officials and company executives to think of other ways of solving the problems posed by the compensation issue, pointed out to them that: (1) Compensations and litigations are actually postmortem actions that can hardly recall a dead marine or forest life, nor can they make up fully for opportunities lost, especially in terms of local employment and sustained livelihood; (2) Cash paid to

the natives for the damages they suffered is often misused which makes their misfortune doubly tragic; (3) Prospects of collecting even the wretched cash compensations have often times been an occasion for bitter intercommunal or kindred contests and feuds, some of which end up in fatal incidents, some in court battles that can impoverish communities or put the land out of use for decades.

The response of the industry was simple and expected. They do not intend to get involved in local administration, adjudication or politics. Therefore, they stick to what their concession provisos say, that is, pay a 'fair and adequate' compensation to communities or individuals whose property is damaged.

State officials themselves claim that no other method is practicable in view of the problems of determination and compliance by both the oil companies and the natives, who are highly suspect of outside arbitration. Therefore they must continue to receive whatever compensation they can negotiate in cash and do with it whatever pleases them.

But compensation money is paid once and for all, which means that the receiver has lost his right to the property forever. Villagers are frequently unable to handle properly such money because it does not come their way very often. And in the absence of professional advice or entrepreneurial competence, cash payments have easily gone down the drain.

In Ebocha in Ogba/Egbema Division of Bomu in Ogoni Division, we found two families who received ₦8300 and ₦500 as cash compensations. In each case, the head of the families used the money to take on second and third wives, thereby bringing on more responsibility

on the family that just lost most of its means of livelihood. Also the receipt of the money became an occasion for the second burial ceremony of a forefather who died about a generation ago, but has not been 'properly' buried for want of sufficient cash. That was at Ebocha. Other means of wasting such once and for all cash payments include taking on costly traditional titles, sometimes building durable concrete houses, or simply sometimes by acquiring perishable consumer items such as radios and televisions, bicycles or motor-cycles. Perhaps it is because of the indulgence in commodities such as these that the oil companies point to the compensation payments as part of their contribution to the improvement of life in their local areas of operation.

### Conclusion

We have examined in this chapter how 'economic, social and political inadequacies' in the country created oil pollution and ecological degradation. This disturbance of the environmental balance has reduced the ecological capacity to meet human needs in the affected areas, being particularly severe on peasants who live directly out of the land and other natural resources of their environment. The cultural heritage of these communities has also been severely threatened.

Recovery and development programs, which would require extensive financial and political backing, are as yet nonexistent. It is therefore just and proper for any future arrangement or formula for allocating oil revenues among the members of the Nigerian Federation

to give the highest priority to the question of environmental reclamation or even protection in the oil states. It would be advisable for politicians and the lawmakers to be personally acquainted with the realities of the local impacts of the petroleum industry before handing down policies regarding the mobilization and dispensation of its rewards.

Monetary compensations, we have seen, can never be a close substitute to what environmental disruption takes from the communities of the oil fields. Instead of direct cash payments, which are subject to immediate misuse, it might be better to invest the money in a supervised and coordinated community development program, especially when the compensation is for damage to communally-owned property, as is most often the case. This could take the form of developing rural community industry, agricultural revolution, providing social services such as improving rural water supply, health, education, communications and other infrastructures. A program like this would not only diminish the occurrence of friction and disagreements that sometimes arise over conflicting claims, but it would also guarantee expenditure on less trivial and transient projects. It could also lead to the payment of more equitable compensations if state officials who would supervise the programs can act honestly.

There could be problems of manpower, management and integrity in running programs of this kind, but these can be no more inhibiting than in any other state and country programs. Even if really adequate and commensurate compensation monies are secured to finance our imaginary programs, such should never

distract attention from the fact that environmental compensation should not be substituted for environmental preservation.

## NOTES

<sup>1</sup>Environmental awareness is generally either yet ill-defined, inarticulate or simply non-existent in most of the developing countries compared to some of the advanced industrial countries, where naturally, the degree of economic expansion and its environmental costs have reached such proportions that now call for extensive clean-up campaigns and preservation. For the poor countries economic growth or development is inevitable if they must achieve comparable standards of living or at best narrow the gap between them and the rich industrial nations. To do this, available natural resources must be exploited to full intensity. In fact there is a feeling, based on the history and experiences of the developed countries of today, that environmental exploitation is necessary and ecological degradation a necessary price for economic and social progress. It is only after you have 'developed' can you then afford the 'luxury and comfort' of environmental preservation. Thus it is almost an impossible task to sell the idea of ecologic responsibility to a struggling developing country. And the problem is compounded by the investment freedom and latitude of modern multinational corporations. Hard pressed at home by a new political force--The Environmentalists--their heavily polluting operations have been migrating in large numbers to the developing regions, where they are not subject to the same rigorous

standards of ecological responsibility as at home. Here, too, they can always give the impression of filling in the technological and capital gap that exists or taking an active part in the development process, which makes them welcome to pollute.

- <sup>2</sup>Eckholm, E. P., *Loosing Ground: Environmental Stress and World Food Prospects*, W. W. Norton & Co. Inc., New York, 1976, p. 21.
- <sup>3</sup>Details of recent changes are contained in *Petroleum Economist*, vol. XLIV, No. 7, July 1977, p. 85.
- <sup>4</sup>Imevbore, A. M. A., *Man and Environment--The Nigerian Situation*, Text of an inaugural lecture at the University of Ife, May 1972.
- <sup>5</sup>Blumer, M., et al., "A Small Oil Spill", in *Environment*, Reprint, vol. 13, No. 2.
- <sup>6</sup>Idoniboye-Obu, B., *Preliminary Quantification of Oil Pollution of the Littoral Zone Around Bonny in the Niger Delta*, text of a lecture delivered at the 14th Annual Conference of the Science Association of Nigerian Benin, April 1973. Elsewhere, Dr. Idoniboye-Obu has persistently stressed the seriousness of the pollution problem and the need to do something quick about it because it is already too late. See (1) *The Revelance of Oil Pollution Studies to the Conservation and Mobilization of Natural Resources in the Niger Delta* (paper presented at the 13th Annual Conference of the Science Association of Nigeria, Nsukka, March 1972. (2) *Oil Pollution in the Rivers State* (text of a lecture delivered to the National Youth Service Corps at Port Harcourt, Tuesday, July 24, 1973.)

- <sup>7</sup>Igbara, S. K., *Political Impact of Oil Disaster Upon the Political System: The Case for Nigeria*, unpublished B.Sc. Dissertation, Department of Political Science, Ahmadu Bello University, Zaria, 1974. Mr. Igbara also made an independent investigation of Shell's Affam incidents in 1977 the results of which are yet unpublished.
- <sup>8</sup>See *The Nigerian Star*, January 11, 1973, pp. 1-4.
- <sup>9</sup>*Daily Times*, Saturday, February 3, 1973, p. 24.
- <sup>10</sup>Federal Republic of Nigeria, Supplement to Official Gazette, No. 62, vol. 56, 27th November 1969, Petroleum Decree, p. A260.
- <sup>11</sup>Federal Republic of Nigeria, *Ibid*, p. A261.
- <sup>12</sup>Federal Republic of Nigeria, *Ibid*, p. B352 (2).
- <sup>13</sup>Federal Republic of Nigeria, Reprint from Supplement to Official Gazette No. 20, vol 64, 28th April, 1977--Part A: *Nigerian National Petroleum Corporation Decree 1977*.
- <sup>14</sup>Federal Republic of Nigeria, Reprint from Supplement to Official Gazette No. 20, vol 64, *Ibid*, p. A181.
- <sup>15</sup>Odu, C. T. I., Microbiology of Soils Contaminated with Petroleum Hydrocarbons--Extent of Contamination and some Soil and Microbial Properties after Contamination, in *Journal of the Institute of Petroleum*, vol. 58, 1972, pp. 201-208.
- <sup>16</sup>Schwendinger, R. B., Reclamation of Soil Contaminated with Oil, in *Journal of the Institute of Petroleum*, vol. 54, 1968, pp. 182-197.
- <sup>17</sup>Interviews, 1977.

<sup>18</sup>McIlroy, R. J., *An Introduction to Tropical Cash Crops*, 1963,  
p. 68.

<sup>19</sup>The Palm tree which is being destroyed in large numbers has been a very important source of livelihood for most people in the upland rainforest part of the Rivers State. Most of the trees are located in communal lands, but some are also privately owned. Communal trees can be harvested by any member of the community, usually on specially designated days when every member of the community joins a communal harvesting party, but each member keeps his or her harvest. The palm tree provides three main items of value to the peasants--palm oil, palm kernel and the popular palm wine. Other minor items of some value are brooms and stakes from the fronds and weaving materials for baskets and other utensils. It is not uncommon for some families in the past to live almost entirely out of proceeds from the palm trees.

PART III

FINAL EVALUATION AND RECOMMENDATIONS

## CHAPTER VI

## THE PETROLEUM BALANCE SHEET IN NIGERIA

At this point of our evaluation, we must return to the basic assumptions with which this study started off. Essentially our contention was that local gains in the petroleum industry have been minimal and on balance, petroleum may have done Nigeria more harm than good.

In the introduction, we outlined opposing points of views regarding the merits of foreign investments in the development of developing countries' extractive industries, but deliberately delayed evaluating each of the opposing views until this point in our study. The background analysis presented in Part I regarding pre-oil boom social and economic conditions in the country, as well as the size, ownership and revenue impacts of the oil industry, provided the focus for the empirical examinations in Part II. There is no need to repeat them here. Instead we shall review our findings by applying them to our conceptual framework concerning the apparent costs and benefits to developing host countries of extractive primary industries, often backed by foreign capital investment.

The Net Impacts

Our empirical examination was made with specific reference to

the Rivers State, although occasionally it became expedient to stretch immediately certain issues to their national context. Petroleum is the greatest single event that is responsible for the present and, perhaps, future economic, social and political configuration of the country. It is therefore appropriate in making this final assessment to stress the relevance of our observed costs and benefits in their national perspective. In this way we shall be achieving one of our stated objectives, which is to subject to further scrutiny some of the existing conclusions in regard to the debate on the merits or otherwise of foreign capital investment in developing countries' export-oriented primary activities. We shall state our conclusions first as a general proposition and then go on to evaluate them in terms of our related observations.

The petroleum industry in Nigeria functions to preserve the essential features of the colonial enclave economy in which there is little integration between the fast growing modern capital and technology intensive sector and the static traditional sector. We saw that the industry is still too autonomous, too little linked financially and structurally to peasant economies and societies the same as in the oil regions particularly as elsewhere in the country. This was seen to be partly caused by the international companies' effort to optimize production factors differently than they would if they operated only in the Nigerian domestic economy--a tendency which leads to sub-optimal use of local factors and causes considerable economic distortions. In any case, the prospect for these so-called backward linkages, by which is meant the petroleum industry's absorption or use of local material and human inputs, is seriously circumscribed by the characteristic requirements of the industry,

irrespective of location and ownership.

Also the predicted forward linkages--the development of ancillary industries--have not occurred, at least on a large enough scale to stimulate inert traditional sectors. The refining capacity of the country relative even to domestic consumption is still abysmally short. Petro-chemical, nitrogenous fertilizer and other petroleum-based processing complexes that could derive from the industry are yet very much issues in speculation. Abundant natural gas still goes to waste while an energy squeeze constitutes a great impediment to social and economic modernization.

These are but a few of many potentials of the petroleum industry that have not been integrated into the local structures. Thus there still exists a typical condition of socio-economic dualism. The modern oil sector is tied through export, international organization, capital support and use of technology to the so-called world market, whereas the traditional sector is helplessly tied to subsistence activities. Both sectors exist independently and yet side by side and accentuating the fundamental difference between the city and the countryside.<sup>1</sup> The predicted technological transfer has thus far not occurred.

Economic and social developments are not necessarily a function of the availability of abundant financial resources. The Nigerian case proves sufficiently that the traditional argument that shortage of domestic capital more than any other single factor limits the ability of developing countries to deal effectively with their problems of underdevelopment is seriously inaccurate. We saw how the federal and state governments' revenues rose astronomically with increased oil production after the civil war and the multiple

escalations in crude transfer prices resulting from OPEC's strength and policies.

So far, however, the growth in government revenue has been mainly reflected in a bloated budget and foreign exchange surpluses (although the later is no longer the case). Without doubt, petroleum has provided Nigeria with ample opportunity to permanently break away from the existing conditions of underdevelopment by easing the chronic constraints on foreign exchange, balance of payments, external reserves and investment capital, all of which, according to economic theory, hinders the process of economic and social progress in the developing countries. However, while the revenue impact of oil in Nigeria is telling enough, its developmental effect is by no means obvious, as the situation in the Rivers State demonstrates.

What is happening in the country is a highly erratic sectoral growth which is far from constituting a condition of rational economic or social development. For instance, much of the oil profits has gone to explore the construction industry, especially housing construction, as a result of which Lagos and a few other capital cities now have an 'impressive' skyline of very tall public and office buildings and residential units, but most of the city populations still live in poverty in the filthy shanties squeezed between magnificent skyscrapers.

These conditions are not peculiar to Nigeria. We saw also that oil wealth has not yet transformed the basic underdeveloped structure of Indonesia and Venezuela.<sup>2</sup> In all three countries this failure now appears to be attributable more to a number of human failures such as corruption, mismanagement, selfishness, cumbersome bureaucracy, excessive militarism and lack of dedication to

objectives. In all, petroleum appears to be a liability rather than an asset.

The sudden and untimely infusion of vast oil revenues into Nigeria has unbalanced the economy and caused serious malfunctioning of the system. It was made clear in our analysis that the petroleum industry burgeoned at a time when the country was little prepared for it and as such there was little debate and planning as to what its role would be, which priorities to emphasize and which fiscal measures to adopt so as to reduce the backlash effects of too much money in a condition of nascent economic and social progress. In the absence, therefore, of sound economic, social and political planning and execution, the country has been saddled with an inflation rate that is among the highest in the world and a highly disorganized economy.

Other equally serious problems stem from these. Nigerians are just beginning to realize that they cannot eat oil, after having allowed what was a resilient agricultural base to go to ruins in the euphoria of the oil boom. Crime and a plethora of other social problems have gripped the country, which could be attributed to the monstrous inequality that has developed between the rich and the poor. Oil boom has turned into oil doom.

The illusion of inexhaustible oil revenues leads to unnecessary complacency which delays and even impairs the process of agricultural and industrial development. It has already been said that although petroleum now accounts for about 45 per cent of the Gross National Product, agriculture and the related rural primary activities still provide the means of livelihood for well over 80 percent of the

inhabitants of the country. But the necessary structural reforms which have become overdue in the latter sector have not been seriously tackled because petroleum overwhelmingly has replaced agricultural products as the principal source of income for all the governments. The same is largely true in the case of industrial processing. By easing the foreign exchange strains and thereby promoting massive imports of food and manufactured goods, petroleum does the country a great disservice by postponing the evil day. Thus the sectoral distribution of development capital in the gigantic third and previous development plans has failed to give agriculture and industry the priority they deserve.

The overwhelming dependence of the domestic economy on one export commodity increases its exposure to price changes in the world commodity markets and threatens continuous social and economic progress. The myth that crude petroleum, of all other primary commodities in which developing countries are said to have a comparative advantage, has achieved price stability, or can hence only appreciate upward in favor of exporters, was seen to have been punctured by the Nigerian experience. With the constant upward trend in crude prices since Nigeria joined OPEC in 1971, the impression gained ground that the days of instability and erratic fluctuations in public revenue, which had previously derived from unstable world commodity prices, was over. Henceforth, government resources would always be increasing. 'Planners', who were sold on this philosophy, were then called upon to design all kinds of grandiose projects based on projections of steady growth in the petroleum sector.

But in 1975 the lower worldwide demand for oil cut Nigeria's oil-based income drastically, and as imports continued to grow its trade surplus dropped quickly creating a new balance of payments difficulties, and the following year Nigeria applied for and secured a US \$1 billion Eurodollar loan to ease these difficulties.<sup>3</sup> Instability has once more characterized government income and planning programs. The fabulous ₦45 billion Development Program has had to be cut in a number of painful ways. This turn of events is a sharp reminder that even the blessings of oil have their limits. Aspiring politicians are now promising to avoid a one-sided dependence on oil resources in future; instead economic growth is to be achieved on a broader basis. But the fact is, however, that the open-handed public and private spending begun in the initial euphoria of new-found wealth seems thus far to have effectively overridden all attempts at putting on the brakes.

Overdependence on a single export product weakens Nigeria's bargaining position vis-a-vis the international companies and leads to a straining of part of the natural environment. In spite of the new strength gained by the OPEC, its members individually cannot yet stand up too strongly against the powerful international outfits that control both production and marketing through series of vertical and horizontal integrations. As an example of this, in 1977 the Nigerian government totally capitulated to the 'striking' oil companies by reducing rents and royalties when it announced new measures and incentives in order to induce them to step up exploration and production activities. The significance of this is that the country is heavily dependent on this single source of income that it has compromised its initiative and determination to control the industry.

One result of this is that there does not exist either the economic rationality or the political wisdom to act decisively to deal with the problems of oil related pollution and environmental stress.

On balance therefore, it is our contention that the costs of petroleum to Nigeria far outweigh the benefits. In reaching this conclusion, based on the above brief summarizations and the detailed analysis in Part II, we strongly reject Pearson's previous conclusion that:

Negative external effects of the operations of the petroleum industry, such as environmental pollution, are important for the localities affected but have minor significance for the economy. Unlike certain other examples of private foreign investment, there is no evidence that the activities of the oil companies have caused unemployment of previously employed local factors. And given the size and diversity of the future Nigerian economy, any factor price distortion introduced by petroleum are not expected to result in the series of disadvantages associated with strongly dualistic economies. The petroleum industry per se should not involve important economic costs, except in the unlikely event that it uses more skilled labor than it trains.<sup>4</sup>

We presented enough evidence in Part II to show that the negative external effects of the industry, including pollution, inflation, crime and so on, are very serious indeed and affect all parts of the country very strongly. The retardation and abandonment of agriculture and the rural sector, the destruction of many local fishing, hunting and other traditional cultures through the effects of oil pollution, the prevailing famine and deficiencies in the country, unprecedented rural unemployment and urban drift and the unsettling political agitations for either reparations or greater shares of the 'national cake,' all are the negative outflows from petroleum. No, the industry cannot be an exception to the fact that industry always has its negative aspects.

We showed evidence also that the industry, contrary to expectation, has caused unemployment of previously employed factors, particularly in the agricultural and industrial sectors. The import spree was seen to have stifled most of the domestic producing and processing potentials and initiative. This has had the effect of locking the country into the international role of a primary producer--a very undesirable instance of a static comparative advantage.

Our study also shows other points of conflict with Pearson's conclusions. The diversity of the Nigerian economy before the oil boom, which he predicted would increase, has actually been destroyed by 'king' petroleum. The present economy is dangerously one-sided and contains very serious distortions of grave consequences to any future regional planning and development effort. Thus the economic and social costs of petroleum have been many and serious.

On the benefits side of the petroleum balance sheet, Pearson was also very optimistic, based on his projections, that the impacts of the industry on foreign exchange, balance of payments, government revenues and financial independence or fiscal flexibility, technological and investment linkages would be quite substantial. In a way, events after the Arab oil embargo rendered his estimates even too conservative for some time. But as we have shown, these are no longer the case. As an economist, Pearson assumed 'all other things to be equal.'

It was natural to expect that with the increase in production and revenue that occurred or would occur in time, the economy and society would respond and progress in a number of positive ways. For example, it was quite natural to expect that, given the size

of the Nigerian market, ancillary industries, depending on the petroleum industry either for materials or market, would be established such as fertilizer and chemical plants, gas liquefaction, pipeline manufacture, etc., all of which would add diversity to the economy. But as things have turned out, all other things are not equal. Unquantifiable human factors have not been taken into account. The expected linkages and integrations have not occurred--the industry has remained essentially extractive and exploitative.

In fairness to Pearson, it has to be recognized that there is just as much a temporal aspect to the validity of his benefits arguments as to our costs conclusions. While the significance of the benefits have changed over time, the costs have not always been that overriding.

Special Problems. In the course of making the above painful, but inevitable evaluations of the much-heard of and often dramatized Nigerian 'oil bonanza,' problems were encountered both of a fundamental and an ideological nature.

Our emphasis, without doubt, was on the negative effects so that we had to deal less comprehensively with the positive or beneficial effects. This is partly because, in the past and in other works, those positive sides of the industry (mainly its financial and economic gains) have been stressed unrealistically to the total exclusion of even their adverse repercussions. But the present situation calls for a reassessment of those gains against the sum of the negative impacts.

Our position is a difficult one to maintain, even in the face of overwhelming corroborating evidence, because oil--the 'black gold'--

has become generally synonymous with national wealth and progress. Everyone, including the poor who suffer the worst effects of these negative fall-outs, still has bright hopes as to the ability of the industry to lift the country into prosperity and progress. It thus feels very odd to depart deliberately from this mainstream.

Our decision to do this was based on the obvious fact that, under any conventional accounting system, the benefits of oil to Nigeria are so restricted with regard to the number of people affected, whereas the costs--the unintended adverse effects--are almost universal. Because of this, it is our thesis that the gross benefits of the industry should be assessed with respect to the majority, not the tiny minority, that are affected.

Also, it was difficult to cover all the important aspects of the industry in order to present a better rounded picture. As we pointed out in the introduction, this was made more difficult by the mutual suspicion that exists between industry and government and the lack of information and the secrecy that unnaturally surround the petroleum industry and make independent researchers highly suspect. Thus in selecting what are considered principal issues for evaluation, we may have failed to consider some aspects that to others may seem of equal or more importance. However, we hope in the course of further studies with a narrower focus to cover issues that interested us but which could not be adequately dealt with in the scope of this study.

Exactly how much of our conclusions are affected by personal judgment or special experiences is not easy to tell since it was necessary to back up specific, quantitative data with qualitative

personal observations. This is not unusual in a social science endeavor where a high degree of flexibility is called for in dealing with or predicting human factors. We are aware of the dangers of criticism involved in this.

Oil in Nigeria has already created numerous problems. If a complete disaster is to be avoided, there ought to be a change of policy and priorities. This should not be an exclusive specialty of economists and engineers. It is to these inevitable changes that we address our next and concluding chapter.

## NOTES

<sup>1</sup>Very much related to this context is the center--periphery concept, by which is meant that the center (usually a regional metropolis) appropriates to itself the surplus of the periphery (the countryside or urban region) for its own development. This was a familiar characteristic of the colonial era in Nigeria when a few major mercantile cities (other than the purely traditional cities) or trade posts grew up to link the European industrial countries and their raw materials to Nigeria. Such cities became the *points of concentration of modern large-scale industrial and commercial enterprises*. Injection of capital extracted from the countryside into these cities' services and urban economics, started to attract floods of migrants from the countryside. Such center-periphery relations have been replicated in this post-independence oil boom. Oil wealth has promoted the growth of very large regional metropolises to which the populations and resources of the countryside are siphoned.

<sup>2</sup>Misuse of oil revenues and the social, economic and political problems oil wealth creates are in general common characteristics of all developing country exporters. Iran, Saudi Arabia, Kuwait, etc., are all seething and struggling with the problem of 'being too rich'. But what makes the case of Indonesia, Nigeria and Venezuela more significant and worrisome is the fact that, while their annual oil revenues are not as extra-ordinarily large as

those of some of the small Persian Gulf states, for instance, they have to deal with the difficult problem of developing a much larger territory and raising the standards of living of a much greater population. Consider the following: Indonesia and Nigeria each has a population in 1977 of about 142 million and 80 million inhabitants to take care of, their annual revenues from oil in 1978 is about \$7 billion for Indonesia and \$9 billion for Nigeria, and their per capita GNP are \$209 and \$400 respectively. On the other hand, Kuwait, with a population of only 900,000 in 1975, has a yearly petroleum income of \$8.5 billion and a per capita GNP of over \$17,000 which is the highest in the world.

<sup>3</sup>See 'Nigeria Looks for Funds', *West Africa*, No. 3139, Sept. 5, 1977, p. 1802. This article speaks of the disbelief and astonishment of most Nigerians when what they see as a spendthrift government went aborrowing in spite of 9.5 billion dollar annual petroleum income. In early 1978 Nigeria was forced to borrow 1 billion dollars on the Eurocurrency market advanced by 3 international banks--American Chase Manhattan (London Branch), Morgan Guaranty and German Deutsche Bank. Again in December it borrowed 750 million more from a consortium of 36 American and European banks (See *U.S. News and World Report*, 'Another Country Where Oil May Spell Trouble', January 15, 1979, pp. 29-30.)

<sup>4</sup>Pearson, S. R., *Petroleum and the Nigerian Economy*; Stanford University Press, Stanford, California, 1970, pp. 156-157.

## CHAPTER VII

## POLICY IMPLICATIONS

This work has discussed a number of issues pertaining to petroleum and the Nigerian society and economy. These issues range from purely institutional elements to deliberate and fortuitous policy measures and omissions, all of which have variously contributed to the sum of the discernible geographic impacts of oil in the country. Since it was our thesis that the balance of these impacts is adverse, based on the interest of the majority of Nigerians, it is now imperative to propose policy options or modifications which we believe are urgently needed.

Clearly we do not seek to make projections or extrapolations which pretend to indicate subsequent production levels and changes, revenue yields and other financial benefits or even the prospective longevity of the industry--ours is not an economic analysis per se and previous experiences have shown how dangerously misleading this can be. Rather our purpose here is to re-examine government and industry policies with respect to the present human consequences of petroleum so that more Nigerians could enjoy a higher standard of living out of the petroleum profits.

Throughout our study there was evidence that the interests of government and industry converged only as far as making profits out of the industry was concerned. Local interests were completely ignored, often trampled upon, in the process. There was evidence

also of lack of planned and deliberate commitment of part of the petroleum windfall to rural improvement and general structural development, while a host of problems were either newly created or simply aggravated on account of bad fiscal and economic policies. Nigeria has suddenly become a spoilt child by virtue of overreliance on the wasting asset of petroleum as a panacea for all its developmental problems. The complexity of all these conditions calls for new policy measures which have ramifications for the producing regions, the country as a whole, and even the international oil companies.

#### Policy Implications for the Nigerian Government

We choose to deal with policy implications for the Nigerian Government first because oil policies and revenues are made and mobilized at the national level with strong implications down to the local producing communities.

The major policy issues which confront the Nigerian Government with respect to the production and utilization of petroleum fall into two or three categories, namely questions dealing with the raising of revenues and with the distribution and effective use of oil-related revenues, as well as with the physical and ecologic negative impacts.

The first set of issues are those which deal directly with production standards and policies or with the question of who should exploit the petroleum reserves in Nigeria. But the fact that a host of international oil companies are already represented in Nigeria and that the federal government has already acquired 'controlling'

shares in the equities of these companies, makes any further discussion irrelevant. There does not appear to be much that can be done to change the situation; even to do so may not be advisable in view of the highly skilled nature of the oil industry and a seeming lack of domestic competence in high level technical and organizational skills. Whatever the relationship between industry and government turns out to be in the future, such, unlike in the past, should go beyond the circumscribed financial dealings to include public rights to property and convenience.

There is a growing conflict between government's intention to conserve the Nigerian petroleum by pumping less of it out of the ground and the ever-growing need for hard currency, both of which are mutually exclusive, despite higher prices making up for reduced production. A government appointed study group which we identified in Chapter 2 had strongly recommended conservation of crude reserves as a necessary national economic policy, maintaining that 'in very strict terms, the criteria for fixing the ceiling for production rates should be such that we do not produce one barrel of oil more than is necessary to generate the revenue required to meet the nation's budget'.<sup>1</sup> The national dailies are replete with opinions such as this from a wide cross-section of the public who base their arguments essentially on the depletable nature of petroleum.

It is regrettable that those who press for conservation have not considered all the facts relevant to the issue. Recent events would suggest that emphasis be placed on near-term increases rather than sitting on the oil over a long-term in the hope of perpetuating oil revenues for an uncertain future 'rainy day'. The former does not

preclude the later, and may indeed be a necessary condition for achieving it. Increased production at the present going price and prudent management (this is highly essential and critical) of the resulting revenues should provide the means necessary to accelerate the modernization of the backward, unproductive members of the economy instead of slowing down these efforts on the uncertain assumption that oil will be as valuable or more valuable a commodity twenty or thirty years from now. The immediate gain to the country from judicious investments of oil revenues will be enduring, the future of oil in the ground is highly uncertain. The shifts in energy demands and world trade patterns, which caused a sharp drop in crude lifting from Nigeria in 1975/76 and therefore an embarrassing revenue loss to government, are lessons in this respect.

But there is no question, whatsoever, as to the rationale for the conservation of the environment of the oil regions. Unfortunately, the laws that purport to regulate all aspects of petroleum exploitation (The Petroleum Decree 1969 and the NNPC Decree 1977) are either deliberately silent on a number of operational questions affecting the environment or even appear to be anti-environmental conservation. There is an urgent need to review and enforce strong environmental protection measures now that ecological degradation has reached alarming proportions. These ecological disasters may be physically localized, but it has to be realized that the peoples and economies of the affected local areas are or should be part of the national mainstream.

The present partnership (and share production) arrangements in which public interests, represented by the NNPC, are paramount provide the necessary leverage for the government to assume more

responsibility in setting standards and policies which make for good environmental management. This calls for an imaginative and comprehensive manpower development and training programs so as to overcome the so-called 'lack of executive capacity' obstacle which in the past had limited field inspections and law enforcement. Such training programs do not yet exist and should be provided independent of the currently industry-operated petroleum institutes.

The next set of very urgent and important issues which the Nigerian Government has to deal with concern the use and distribution of oil-related revenues and benefits. The first consideration is how to link the industry to the rest of the economy so that growth and innovation in one are reflected in the other. From our previous discussion of the nature of international petroleum industry, it is evident that such a linkage could not automatically come to be unless there were deliberate interventions.

Certainly one of several ways in which this can be done is to promote the establishment of all those ancillary industries and services that until now have been stalled by a number of technical, organizational and even political considerations. Some of these ancillary industries, such as gas generation of electricity, while converting a most unjustifiable waste and source of severe ecological stress to abundant utility, would also have a direct and immediate effect on other economic sectors that have presently remained aloof from the petroleum sector.

We cannot overemphasize the fact that one of the negative effects of the increased oil revenue is that it is doing nothing to improve, and is in fact positively encouraging, the poor state

of the non-petroleum sector, particularly agriculture. Agriculture is in a very bad shape indeed structurally and the exodus from the farms means that Nigeria, once an exporter of food, must now import it--over N840 million (US \$1.34 billion) worth in 1977 alone. Since we cannot eat oil, at least not yet, it makes good policy to use the budgetary flexibility made possible by oil money to modernize this important sector to be highly productive.

One of the most sensible policies would be to remove all tax burdens on the agricultural sector as an incentive to stimulate the production of food and cash crops. The removal of the notorious agricultural export taxes and Commodity Marketing Board profits, which have been an instrument of rural oppression, would improve rural income and help stem the tide of rural-urban migration. Of course, these fiscal measures need to be effectively backed by heavy financial and technological investments to achieve the overdue structural modernization of the agricultural sector. Most urgent are investments in land reforms, some mechanization, subsidization of fertilizer and other inputs.

The manufacturing sector has been virtually stagnant since the oil boom in 1974, after recording an annual growth of 24 per cent in 1973. As part of an all out effort to make the economy less dependent solely on petroleum, a vigorous industrial policy should be undertaken. With a population of about 80 million and a relatively increasing purchasing power, Nigeria has the largest effective domestic market in all of Africa, one that can support large-scale modern processing of a variety of consumer and capital goods. Therefore, import substitution alone should no longer be the goal of industrial

planning. The country is blessed with abundant natural resources other than petroleum, as material for a variety of industrial processing even for export. Petroleum, therefore, should provide the means of fully developing our manufacturing potential instead of being the means of frustrating it.

It is not expected by any means that the petroleum revenues should be distributed in cash on a per capita basis so as to make everyone benefit from the industry. But a lot more could be done to achieve the same effect on a more rational and tangible way. Apart from the employment and other forms of economic opportunities that industrial and agricultural improvements would bring, investments in the provision of social and welfare services would raise the quality of life of the people. The problems of inadequate production and distribution which fuel inflation are further aggravated by those of poor transportation system, poor infrastructure-housing, water, sewer, energy, health services, education and others which all sum up to a very low standard of existence for most people. These services should be provided not only for the urban minority, but also for the rural majority who have been by-passed at present by the petroleum bonanza.

In general, it should be determined realistically what the role of petroleum should be in the national development effort and strategy. While theoretically it may have eliminated and eased a number of constraints to development, it has at the same time introduced a fiscal management problem of another kind and of larger dimension. It is the problem of how best to spend the increased revenues without adverse effects on the economy--especially through

inflation. And, related to this, is also the problem of extreme dependence on one source of revenue. What will happen when oil exports fall significantly below forecasts, as happened in 1975 and 1976, or perhaps if oil generally becomes a less valuable and wanted commodity?

A host of considerations, including the need to make fiscal policy measures more effective, the unpredictable future of petroleum (including its unrenovable nature) owing to the fear of possible change in the world energy equation such as would bring petroleum prices tumbling down, or even as a hedge against the day when the oil wells finally run dry--all would suggest immediate diversification in revenue sources.

One of the problems that has not been solved by oil, one that in fact now appears to be accentuated by it, is political stability. But political stability, as the Biafran episode demonstrated, is so essential, not only for the right investment atmosphere and market confidence in the oil industry to exist, but also for the expected financial and developmental impacts of oil to be realized. The greatest political threat of oil now lies in its revenue sharing controversy and the lopsided distribution of its benefits.

The oil producing states are conspicuously less developed in terms of infrastructural and economic development compared to some of the non-oil states. The oil wealth is severely concentrated in only very few cities and in the hands of only a few people as the gap between the haves and have-nots dangerously widens. These conditions pose a real threat to peace in the future unless arrangements for revenue allocation among the member states and

programs of public expenditure are designed to correct past anomalies. Such future arrangements and programs should not be based on geo-political considerations but rather on the need to achieve a balanced structural development for all of Nigeria. It pays to recognize that unbalanced development, both socially and economically, creates more problems than it can solve.

#### Policy Issues for the Producing Localities

At present, the implications of national petroleum policies are meant to apply equally to the oil states and non-oil states, especially in regard to the dispensation and use of petroleum monies. But we have seen that this superficial attempt to achieve 'national justice' has not always worked out. Two issues, however, can be advanced to propose and justify setting up a special development fund out of the petroleum gains to be used exclusively in the oil localities. The Venezuelans, for example, have long had a slogan, based on a program--'sowing the petroleum'--which means investing oil revenues in activities in local producing areas that will continue to sustain means of livelihood and compensate for ecologic and economic disruptions after the wells run dry.<sup>2</sup>

One of the issues is the fact that oil pollution and environmental stress have severely limited economic and social activities among the affected local communities of the oil fields in a way that no other part of the country has. Therefore, to clean up the areas and revive or compensate for destroyed activities, a separate financial allocation is called for. The second issue relates to

the information we provided in Chapter I regarding the deliberate neglect and backwardness of the Niger Delta area. It was in recognition of the depressed nature of this region, which became the seat of oil in the country, that the former Niger Delta Development Board (1961) was established, as well as its successor, the Niger Delta Basin Development Authority (1976). Both have had little success in changing the relative backwardness of the area.

The Special Development Fund which we are calling for should therefore be administered in such a way as to avoid the financial, administrative and technical obstacles which have denied success to its predecessors. While the program should be adequately funded by the central government, it should not be run from Lagos in order to avoid the kinds of bureaucratic and political muddles that have thwarted previous regional and rural development efforts. The Fund should rather be administered by a special task force or board with independent fiscal and administrative powers and responsibilities.

The membership of such a task force (such as the Federal Government Anti-Inflation Task Force in 1975)<sup>3</sup> should include professionals of different backgrounds--social scientists, engineers, doctors, teachers and others--because the range and diversity of problems involved cannot be objectively covered by any single specialty. In the past the issue of development has been an exclusive domain of economists who have shown little or no sympathy to the plight of rural people nor understanding of the cultural and sociological implications of some of their models.

The absence of a deliberate and constructive rural development scheme makes the necessity for this task force more urgent. The

main focus of the task force should be to raise the standard of living and productivity of the people of this region through various strategies, such as industrialization, agricultural improvements, and the provision of basic amenities and infrastructure such as would fulfill the peoples' expectations from the booming petroleum industry around them.

#### Implications for the International Oil Companies

A brief comment on policy implications for the international oil companies is in order in our bid to bring this work to a final conclusion.

The oil companies are in Nigeria, as elsewhere, to do business so that the size and continuity of profits to their investments are their primary motives. But these cannot be achieved in an atmosphere of confrontation, at least not for long.

Although oil company operations have resulted in substantial transfers of foreign exchange to the Nigerian government, the relationships between industry and government remains tense as a result of the evolution of recent financial arrangements which represent a radical departure from the initial rosy conditions and circumstances under which the industry started. But while the companies, as international enterprises operating across many national boundaries, still retain several alternatives for slowing down or even preventing further erosion of their bargaining power and prolonging their indispensability to the Nigerian government, these may not be sufficient guarantee against the possibility of

popular revolts--the type that could completely stall company activities.

It is important, therefore, for the companies to abandon their present policy of 'non-preemption of government responsibilities' in providing services and advancing economic opportunities both in their areas of operation and elsewhere in the country. There is no doubt that this attitude represents one of many industry's reactions to what it regards as government interference and erosion of its profits. But since, within certain limits, operating costs can still be discounted before profits and profits tax are calculated, it is still possible to undertake a number of local and national development schemes which would be discounted as operating costs and yet not hurt corporate profits badly.

Also, most of the foreign personnel and material input currently imported by the industry could be domestically created or adapted within the technological requirements of the industry. This would reduce the present high level of foreign remittances by the petroleum industry, leave more of the oil proceeds with the government and perhaps reduce substantially the pressure to cut deeper into industry's profits. It would also create more economic opportunities in the public sector which would give more Nigerians some stake in the oil business than is presently the case.

In sum, the industry as presently constituted is still extremely exploitative and extractive. There is no doubt that it has played a vital role in transferring wealth to Nigeria from the rich, industrial, oil consuming nations and has made an indelible impression in the economic and cultural landscapes of the country. But while

catching on to the potentials of oil, it pays to realize its limitations. Oil revenues can provide the finance to achieve growth and development. But in the end, it is changes in productivity, attitudes and living standards that would ensure whether any changes brought about through oil revenues are of any substance or not.

## NOTES

<sup>1</sup>It can be seen immediately that this statement runs into serious difficulty of not determining what level that 'nation's budget should be. It has been the case that the more oil revenues grow, mostly because of sharp increases in crude prices, the more government expenditure grows in response, yet there does not seem to be a limit to the nation's financial needs. However the more serious problem here concerns the appropriateness of using national budget, whatever that becomes, as the sole criterion for fixing the economic level of production. Petroleum engineers have long debated about the merit and how to determine a Maximum Efficiency Rate (MER) of production, on the bases of which productions ceilings should be made in order to get the most out of any well in the long run. See for example, Eric W. Zimmermann, *Conservation in the Production of Petroleum: A Study in Industrial Control*, Yale University Press, New Haven, 1957, pp. 69-71.

<sup>2</sup>See *Business Week*, March 13, 1978, p. 42.

<sup>3</sup>Federal Ministry of Information, Printing Division, Lagos, *First Report of the Anti-Inflation Task Force*, October 1975, p. 100.

## Appendix 1. Census Comparisons of 12 States of Nigeria (millions).

	<u>1952-53 Census</u>	<u>1963 Census</u>	<u>1973 Census (provisional)</u>
Lagos	0.50	1.44	2.47
Western	4.36	9.49	8.92
Mid Western	1.49	2.54	3.24
Rivers	0.75	1.54	2.23
East-Central	4.57	7.23	8.06
South Eastern	1.90	3.62	3.46
Benne-Plateau	2.30	4.01	5.17
Kwara	1.19	2.40	4.64
North Western	3.40	5.73	8.50
North Central	2.35	4.10	6.79
Kano	3.40	5.77	10.90
North-Eastern	4.20	7.79	15.38
<b>Total</b>	<b>30.41</b>	<b>55.66</b>	<b>79.76</b>

Sources: 1. Federal Office of Statistics: Annual Abstract of  
Statistics 1974, Lagos, Nigeria.

2. Guy Arnold, Modern Nigeria, Longmans 1976, Appendix 3.

## APPENDIX 2

THE NIGER DELTA BASIN DEVELOPMENT AUTHORITY (1976)  
Terms of Reference

- (a) To undertake schemes for the development of land, water, fisheries, livestock and forestry resources;
- (b) to develop land for the mechanised cultivation of crops including forestry;
- (c) to develop plantations of food and other crops, including forestry, and to process such food and other crops for consumption;
- (d) to establish ranches for cattle and other species of livestock and process livestock products for consumption;
- (e) to develop and improve the navigation of inland waterways;
- (f) to undertake schemes for the control of floods and soil erosion, including afforestation;
- (g) to undertake schemes for the controlled exploitation of underground water;
- (h) to control pollution of the rivers, lakes and lagoons in the Authority's area in accordance with nationally laid down standards;
- (i) to construct and maintain dams, polders, irrigation and drainage canals, wells, boreholes and other works necessary for the discharge of the Authority's responsibility under this Decree, and to supply water for irrigation and other uses to private persons and recognized associations for fees to be determined by the Authority;
- (j) to resettle persons affected by works or schemes carried out by the Authority, or under special resettlement schemes;
- (k) to conduct or sponsor the conduct of research and feasibility studies into problems of any of the areas for which it has responsibility; and
- (l) to train managerial and technical staff for the purpose of the discharge of the functions of the Authority under this Decree.

Appendix 3  
 Contribution of Oil Companies to Balance  
 of Payments  
 (N million)

	<u>1972</u>	<u>1973</u>	<u>1974</u>
Payments to government or government authorities	729.1	1,333.1	5,097.5
Other local payments	129.6	121.7	105.1
Variation in cash holdings	- 4.3	- 4.2	+ 44.2
Local receipts	<u>46.3</u>	<u>- 47.3</u>	<u>- 53.9</u>
Total contribution to balance of payments	<u>808.1</u>	<u>1,403.3</u>	<u>5,192.9</u>

Source: Central Bank of Nigeria: Annual Report and Statement of Accounts for the year ended 31 December 1974, p. 83.

## BIBLIOGRAPHY

Books and Articles

Adelman, M. A., "Crude Oil Production Costs," *Petroleum Press Service*, Vol. XXXIII, No. 5, May 1966, pp. 177-179.

The World Oil Outlook, *Natural Resource and International Development*, Clawson, M. (ed.), Johns Hopkins Press, Baltimore, Md. 1964.

✓ Agori-Iwe, R., "Ughelli - An Oil City That Once Boomed," *The Zaria Geographer*, Ahmadu Bello University, Zaria, Vol. 2, 1973, pp. 31-35.

*Africa*, "Indigenisation: Economic Nationalism Without Tears for Aliens," No. 73, September 1977, pp. 79-81.

*Africa Guide*, Nigeria, 1977, pp. 213-223.

✓ *African Trade and Development*, Oil Developments in Nigeria, Vol. 1, July 1959, pp. 8-10.

Aiyepoku, W. O., *Geographical Literature on Nigeria 1901-1970: An Annotated Bibliography*, G. K. Hills & Co., Massachusetts, 1974.

Alagoa, E. J., *A History of the Niger Delta*, Ibadan University Press, Ibadan, 1972.

Aluko, S. A., "Inflation and the Budget," *The Economic Insight*, University of Ife, Vol. 1, April 1976, pp. 6-14.

"Oil Boom is Killing Nigeria," *Daily Times*, Wednesday, July 27, 1977, p. 18.

American Petroleum Institute, *Basic Petroleum Data Book*, Section VI, Table 10, April 1978.

*Petroleum Facts and Figures*, New York, 1965.

- Baldwin, R. E., "Export Technology and Development From a Subsistence Level," *The Economic Journal*, LXXIII, March 1963, pp. 80-92.
- Barnett, H. J. and Morse, C., *Scarcity and Growth: The Economics of Resource Availability*, Johns Hopkins Press, Baltimore, Md. 1963.
- Benhan, J., "Venezuelan Oil Riches: A Curse in Disguise," *U. S. News and World Report*, Vol. 85, December 11, 1978, pp. 53-54.
- Bernstein, H., "Modernization Theory and the Sociological Study of Development," *Journal of Development Studies*, Vol. 7, 1971, pp. 141-170.
- Blumer, M. et al, "A Small Oil Spill," *Environment*, Reprint, Vol. 13, No. 2, 1971.
- Buchanan, K. M. and Pugh, J. C., *Land and People in Nigeria-The Human Geography of Nigeria and its Environmental Background*, London, Oxford University Press, 1955.
- Business Latin America*, Venezuela, October 5, 1977, pp. 316-318.
- "The Venezuelan Quagmire: Oil Wealth Has Not Been All That Favorable," July 6, 1977, pp. 209-211.
- Business Times* (Lagos), "Fraudulent Dealing By Oil Firm Suspected," Tuesday, August 23, 1977, p. 1.
- Business Week*, "Bigger State Share of North Sea Oil: British National Oil Corporation," May 29, 1978, pp. 41-42.
- "Britains Oil Bonanza Has a Catch," June 30, 1975, pp. 28-29.
- "OPEC - The Economics of the Cartel," January 13, 1975, pp. 77-81.
- "Venezuela - Oil Glut Curbs a Spending Spree," March 13, 1978, pp. 42-43.
- Charle, E., Jr., "The Appraisal of British Imperial Policy With Respect to the Extraction of Mineral Resources in Nigeris," *The*

- Nigerian Journal of Economic and Social Studies*, Vol. 6, No. 1, March 1964, pp. 37-42.
- Chenery, H. B. and Strout, A. M., "Foreign Assistance and Economic Development," *The American Economic Review*, LVI, September 1966, pp. 679-733.
- Clarke, J., "Oil in Libya—Some Implications," *Economic Geography*, Vol. 39, 1963, pp. 40-59.
- Clawson, M. (ed.), *Natural Resources and International Development*, Johns Hopkins Press, Baltimore, Md. 1964.
- Clower, R. W. et al, *Growth Without Development: An Economic Survey of Liberia*, Evanston, Illinois, North Western Press, 1966.
- Daily Times*, "Government Urged to Tackle Pollution From Oil Industry," Saturday, February 3, 1973, p. 24.
- Deutsche Bank, *Nigeria*, Frankfurt (Main), 1975.
- Dumont, R., *False Start in Africa*, Frederick A. Praeger Inc., New York, 1966.
- Eckholm, E. P., *Losing Ground: Environmental Stress and World Food Prospects*, W. W. Norton & Co. Inc., New York, 1976.
- Elf Nigeria Ltd., *Elf in Nigeria*, Lagos, 1976.
- Floyd, B., *Eastern Nigeria*, MacMillan, London, 1969.
- Frank, A. G., Sociology of Development and Underdevelopment of Sociology, *Catalyst*, No. 3, 1967, Buffalo, New York: State University of New York at Buffalo, pp. 20-73.
- Gaiskell, A., Resource Development Among African Countries, *Natural Resource and International Development*, Clawson, M. (ed.), Johns Hopkins Press, Baltimore, Md. 1964.
- Gelatt, R., North Sea Oil: A Cautious Approach to Prosperity, *Saturday Review World*, Vol. 1, July 13, 1974, pp. 7-9.

- Grove, N., "Venezuela's Crisis of Wealth," *National Geographic Magazine*, Vol. 150, August 1976, pp. 175-208.
- "Nigeria Struggles With Boom Times," *National Geographic Magazine*, Vol. 155, March 1979, pp. 413-444.
- Grunwald, J., *Resource Aspects of Latin American Economic Development, Natural Resources and International Development*, Clawson, M. (ed.), Johns Hopkins Press, Baltimore, Md. 1964.
- Hartoungh, J. C. C., *Report on the Agricultural Development of the Niger Delta Special Area*, Niger Delta Development Board, 1966.
- Helleiner, G. K., *Peasant Agriculture, Government and Economic Growth in Nigeria*, Richard Irwin Inc., Illinois, 1966.
- Higgings, B., "The Dualistic Theory of Underdeveloped Areas," *Economic Development and Cultural Change*, Vol. 4, 1956, pp. 99-115.
- Hirschman, A. O., *The Strategy of Economic Development*, Yale University Press, 1958.
- Hodder, B. W., "West Africa: Growth and Change in Trade," *A Regional Geography of Africa: Regional Essays on Fundamental Characteristics, Issues and Problems*, Prothero, R. M. (ed.), London, Routledge & Kegan Paul, 1969, pp. 415-469.
- ✓ Idoniboye-Obu, B., *Preliminary Quantification of Oil Pollution of the Littoral Zone Around Bonny in the Niger Delta*, Text of a lecture delivered at the 14th Annual Conference of the Science Association of Nigeria, Benin, April 1973.
- The Relevance of Oil Pollution Studies to the Conservation and Mobilization of Natural Resources in the Niger Delta*, paper presented at the 13th Annual Conference of the Science Association of Nigeria, Nsukka, March 1972.

Text of a lecture delivered to the National Youth Service Corps at Port Harcourt, Tuesday, July 24, 1973.

✓Igbara, S. K., "Political Impact of Oil Disaster Upon the Political System: The Case For Nigeria," unpublished B.Sc Dissertation, Department of Political Science, Ahmadu Bello University, Zaria, 1974.

Iloeje, P. N., *A New Geography of Nigeria*, Longmans Ibadan, 1976.

Imevbore, A. M. A., *Man and Environment-The Nigerian Situation*; Text of an inaugural lecture at the University of Ife, May 1972.

Issawi, C. and Yeganch, M., *Economics of the Middle East Oil*, Faber and Faber, London, 1962.

Katili, J. A. "Problems of Resource Development in Southeast Asia With Special Reference to Indonesia," *Indonesia Oil and Gas*, Vol. 1, No. 2, September 1975.

Leeman, W. A., *The Price of Middle East Oil*, Ithaca, New York, Cornell University Press, 1962.

Lipsky, S. and Pura, R., Indonesia: Testing Time for the 'New Order,' *Foreign Affairs*, Fall 1978, Vol. 75, No. 1, pp. 186-202.

Mabogunje, A. L., "Urbanization in Nigeria-A Constraint on Economic Development," *Economic Development and Cultural Change*, Vol. 13, 1965, pp. 413-438.

MacDougall, G. D. A., "The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach," *The Economic Record*, March 1969, pp. 13-35.

Manners, G., *The Geography of Energy*, London, Hutchinson, 1964.

✓Melamid, A., The Geography of the Nigerian Petroleum Industry, *Economic Geography*, Vol. 44, No. 1, January 1968, pp. 37-56.

- Myint, H., "The Gains from International Trade and the Backward Countries," *Review of Economics and Statistics*, 1954-55, pp. 129-142.
- Myrdal, G., *An International Economy*, Harper and Brothers, 1956.
- Economic Theory and Under-Developed Regions*, Gerald Duckworth & Co. Ltd., London, 1957.
- Development and Underdevelopment-A Note on the Mechanism of National and International Inequality*, The National Bank of Egypt: Fifth Anniversary Commemoration Lectures, Cairo, 1956.
- National Planning Association, *United States Business Performance Abroad: The Case Study of the Creole Petroleum Corporation in Venezuela*, No. 4, December 1955.
- United States Business Performance Abroad: The Case Study of Firestone Operations in Liberia*, No. 5, December 1956.
- United States Business Performance Abroad: The Case Study of Stanvac in Indonesia*, No. 6, June 1957.
- United States Business Performance Abroad: The Case Study of United States First Company in Latin America*, No. 7, 1958.
- Nigerian Agricultural Bank Ltd., *Guide to Applications*, Baranka Press, Kaduna, 1976.
- ✓Nigerian National Oil Corporation, *A Review of the Petroleum Exploration Practices of the Operating Companies in Nigeria-Reservoir Engineering Report*, No. 1, December 1975.
- Nigerian Observer*, "Oil Bonanza? Fasten Your Belts Nigerians," Saturday, January 14, 1978, p. 16.
- "Come to Our Aid-Nigeria Appeals to World Financial Institutions," Tuesday, January 17, 1978, p. 1.

- Nigerian Star*, January 11, 1973, pp. 1-4.
- Nigerian Tide*, More Money for Oil Areas Urged (Constituent Assembly), Monday, November 14, 1977, p. 1.
- ✓ Nwogan, E. D., "Oil in Nigeria," *Nigerian Geographical Journal*, 111, November 1960, pp. 15-25.
- O'Connell, J., Political Constraints on Planning: Nigeria as a Case Study in the Developing World, *The Nigerian Journal of Economic and Social Studies*, Vol. 13, No. 1, March 1971, pp. 39-57.
- "Some Social and Political Reflections on the Plan," *The Nigerian Journal of Economic and Social Studies*, Vol. 4, No. 2, July 1962, pp. 131-146.
- Odell, P. R., *An Economic Geography of Oil*, London, G. Bell & Sons Ltd., 1965.
- Oil and World Power: Background to the Oil Crisis*, Penguin, 1974.
- Odu, C. T. I., "Microbiology of Soils Contaminated With Petroleum Hydrocarbons - 1. Extent of Contamination and Some Soil Microbial Properties after Contamination," *Journal of the Institute of Petroleum*, Vol. 58, 1972, pp. 201-208.
- Ogunsheye, A., "Marketing Boards and the Stabilization of Producer Prices and Incomes in Nigeria," *The Nigerian Journal of Economic and Social Studies*, Vol. 7, No. 2, July 1965, pp. 131-139.
- Olatunbosun, D., *Nigeria's Neglected Rural Majority*, Oxford University Press, Ibadan, 1975.
- Oil and Gas Journal*, Petroleum Publishing Company, 1974-1977.
- ✓ Oil Developments in Nigeria, *Africa Trade and Development*, Vol. 1, July 1959, pp. 8-10.

- ✓ Pearson, R. S., *Petroleum and the Nigerian Economy*, Stanford University Press, Stanford, California 1970.
- "The Impact of Petroleum Production on the Nigerian Economy," unpublished Ph.D. Dissertation, Harvard University, 1968.
- ✓ Pearson, R. S. and Meyer, R. K., "Contributions of Petroleum to the Nigerian Economic Development," *Commodity Export and African Development*, Pearson, R. S. and Cowrie, J. (eds.), Heath and Co., Massachusetts, 1974, pp. 155-177.
- ✓ Pearson, R. S. and Pearson, S. C., "Oil Boom Reshapes Nigeria's Future," *Africa Report*, February 1971, pp. 14-17.
- Penrose, E. T., Profit Sharing Between Producing Countries and Oil Companies in the Middle East, *Economic Journal*, June 1959, pp. 234-254.
- ✓ *Petroleum Economist*, "Nigeria-A Slower Rate of Progress," January 1976, pp. 12-13.
- Petroleum Press Service* (January - December) 1974-1976.
- Prebisch, R., "Commercial Policy in the Underdeveloped Countries," *American Economic Review*, May 1959, pp. 251-255.
- ✓ Rake, A., "Boom Brings A Crop of Problems," *African Development*, March 1972, pp. N. 15 - N. 17.
- Robinson, M. S., "Nigerian Oil: Prospects and Perspectives," *The Nigerian Journal of Economic and Social Studies*, vi, July 1964, pp. 219-229.
- Roosevelt, C., Report from the North Sea: Importance of Planning for Offshore Gas and Oil Development, *Ocean*, Vol. 8, September 1975, pp. 6-7.
- Schatz, L. H., *Petroleum in Nigeria*, Oxford University Press, Ibadan, 1969.

"The Development of the Oil Industry in Nigeria: with Special Reference to the Effects of the Civil War," *Erdkunde*, 1 March 1970, pp. 59-71.

Schatz, S. P., *Nigeria Capitalism*, University of California Press, Berkeley, 1977.

Schwendinger, R. B., Reclamation of Soil Contaminated With Oil, *Journal of the Institute of Petroleum*, Vol. 54, 1968, pp. 182-197.

Shell-BP Petroleum Development Company of Nigeria Ltd., *Shell-BP in Nigeria*, Lagos, January 1970.

*Statement of General Business Principles*, 1977.

Singer, H. W., "United States Foreign Investment in Underdeveloped Areas-The Distribution of Gains Between Investing and Borrowing Countries," *American Economic Review*, May 1950, pp. 473-85.

Smith, D., Nigeria's New Marketing Boards: 1, *West Africa*, May 8, 1978, pp. 877-879.

Sokunbi, D. O. B., "The Impact of the Oil Industry On the Economy of Nigeria," *The Nigerian Journal of Economic and Social Studies*, IV, March 1962, pp. 77-83.

Souza, A. and Porter, P. W., *The Underdevelopment and Modernization of the Third World*, Association of American Geographers, Resource Paper No. 28, 1974.

Stolper, W. R., *Planning Without Facts: Lesson in Resource Allocation from Nigeria's Development*, Cambridge, Massachusetts, Harvard University Press, 1966.

*Time*, "Indonesia-A Land of Promise: The Wealth of A Troubled Paradise," May 16, 1977, pp. 46-48.

Turner, T., "Multinational Corporations and the Instability of the Nigerian State," *Review of African Political Economy*, No. 5, January - April 1976, pp. 63-79.

- Udo, R. K., *Geographic Regions of Nigeria*, London, Heineman, 1970.
- Ugo, S. U., Presidential Address, Nigerian Economic Society,  
*The Nigerian Journal of Economic and Social Studies*, Vol. 13,  
No. 1, March 1971, pp. 3-12.
- U. S. News and World Report*, "Another Country Where Oil May Spell  
Trouble," January 15, 1979, pp. 27-30.
- Wallach, B., "The Geographic Consequences of Oil-Land Tenure at the  
Midway-Sunset Oil Field, California," unpublished Ph.D.  
Dissertation, Department of Geography, University of California,  
Berkeley, 1968.
- West Africa*, "Nigeria Looks for Funds," No. 3139, September 5, 1977,  
p. 1802.
- Yergin, D., "The Great Fritter Debate," *New Republic*, Vol. 179,  
August 5, 1978, pp. 15-17.
- Zimmermann, E. W., *Conservation in the Production of Petroleum: A  
Study in Industrial Control*, Yale University Press, New Haven,  
1957.

Statistical Sources and Government Publications

- Annual Abstract of Statistics*, Federal Office of Statistics, Lagos, 1972.
- Annual Abstract of Statistics*, Federal Office of Statistics, Lagos, 1973.
- Annual Abstract of Statistics*, Federal Office of Statistics, Lagos, 1974.
- Annual Report and Statement of Accounts For The Year Ended 31st December, 1971*, Central Bank of Nigeria, Lagos.
- Annual Report and Statement of Accounts For The Year Ended 31st December, 1974*, Central Bank of Nigeria, Lagos.
- Capital Estimates of the Rivers State of Nigeria, 1975-1976*, Ministry of Economic Development and Reconstruction, Port Harcourt, 1975.
- Developments In The Nigerian Economy During The First Half of 1977*, Central Bank of Nigeria, Lagos, 1977.
- Digest of Statistics*, Federal Office of Statistics, Lagos, Vol. 25, January 1976.
- Economic and Financial Review*, Central Bank of Nigeria, Vol. 14, No. 1, March 1976.
- Economic and Financial Review*, Central Bank of Nigeria, Vol. 14, No. 2, June 1976.
- Economic and Financial Review*, Central Bank of Nigeria, Vol. 14, No. 3, December 1976.
- Federal Nigeria*, Embassy of the Federal Republic of Nigeria, Washington, D. C., Vol. 3, No. 1, April-June, 1977.
- Federal Nigeria*, Embassy of the Federal Republic of Nigeria, Washington, D. C., Vol. 4, No. 1, July-September 1977.

- First Report of the Anti-Inflation Task Force*, Federal Ministry of Information, Lagos, October 1975.
- Foreign Economic Trend and Their Implications For The United States*, U. S. Foreign Service, U. S. Department of State (Department of Commerce), Domestic and International Business Administration, Bureau of International Commerce, January, 1976.
- Monthly Petroleum Information*, Ministry of Petroleum Resources, Lagos, January through December, 1976.
- Monthly Petroleum Information*, Ministry of Petroleum Resources, Lagos, January through December, 1977.
- Monthly Report*, Central Bank of Nigeria, Research Department, Lagos, January through December, 1977.
- Monthly Report*, Central Bank of Nigeria, Research Department, Lagos, January through December, 1978.
- National Agricultural Sample Census of Nigeria 1974-1975, Consolidated Results of Rural Household Enquiries*, Federal Office of Statistics, Lagos, 1976.
- Niger Delta Basin Development Authority: Ceremony of the Official Launching*, June 17, 1978.
- Nigeria Handbook*, Federal Ministry of Information, Lagos, 1977.
- Nigeria National Petroleum Corporation Decree 1977*, Federal Republic of Nigeria, Reprint from Supplement to Official Gazette, No. 20, Vol. 64, 28th April 1977.
- The Oil Rich Rivers State*, Lagos, Nigeria: Information Unit, Office of the Governor, Rivers State, 1967.
- Petroleum Decree*, Federal Republic of Nigeria, Supplement to Official Gazette, No. 62, Vol. 56, 27th November 1969.

*Rivers State Development Program of the Third National Development Plan 1975-1980*, Ministry of Economic Development and Reconstruction, Port Harcourt, 1975.

*Rivers State of Nigeria - 1977-1978 Budget Broadcast*, Ministry of Information, Port Harcourt, April 14, 1977.

*Rivers State of Nigeria: Road Development*, Ministry of Information, Port Harcourt, 1977.

*Rivers State of Nigeria: Spotlight*, Port Harcourt, May 1, 1977.

*Rural Development - Rivers State*, Ministry of Information, Port Harcourt, 1976.

*Second National Development Plan 1970-1974*, Federal Republic of Nigeria, Federal Ministry of Information, Lagos, 1970.

*Survey of Urban Housing Conditions 1970-1971*, Federal Office of Statistics, Lagos, 1972.

*Third National Development Plan 1975-1980*, Federal Republic of Nigeria, Federal Ministry of Economic Development, Vol. 1, Lagos, 1975.